United States Department of Agriculture

Natural Resources Conservation Service

In cooperation with Minnesota Agricultural Experiment Station and Board of Water and Soil Resources

Soil Survey of Hennepin County, Minnesota

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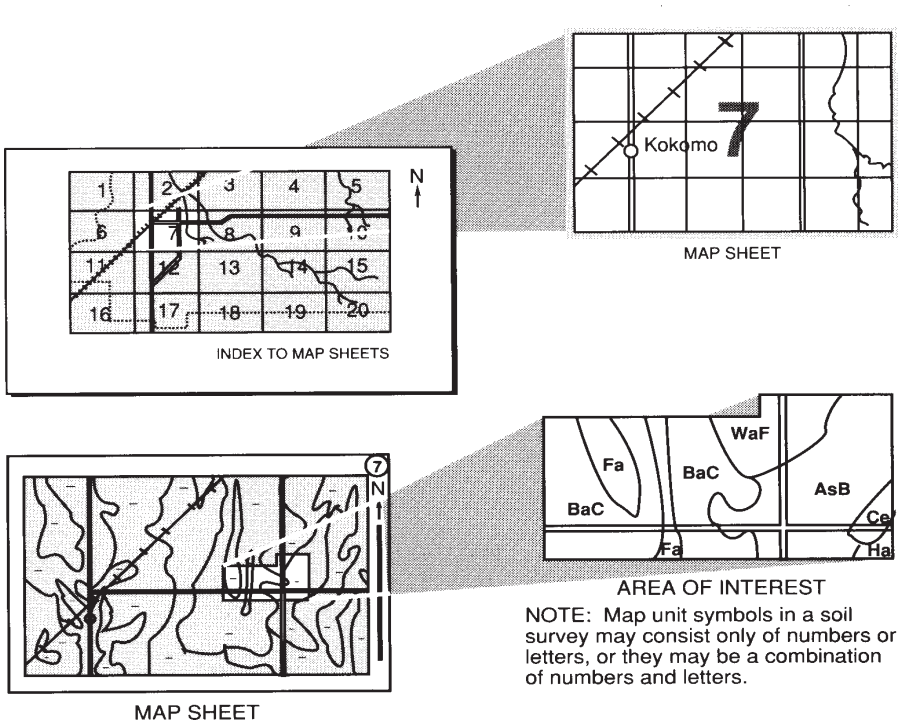
This publication consists of a manuscript and a set of soil maps. The information provided can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet, and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described. The map unit symbols and names also appear as bookmarks, which link directly to the appropriate page in the publication.

The **Contents** shows which table has data on a specific land use for each soil map unit. Also see the **Contents** for other sections of this publication that may address your specific needs.



NOTE: Map unit symbols in a soil survey may consist only of numbers or letters, or they may be a combination of numbers and letters.

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 2000. Soil names and descriptions were approved in 2001. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2001. This survey was made cooperatively by the Natural Resources Conservation Service, the Minnesota Agricultural Experiment Station, and the Board of Water and Soil Resources. It is part of the technical assistance furnished to the Hennepin Conservation District, which also provided funding for part of the survey.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

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Cover: A wetland and prairie restoration project in Hennepin County.

Additional information about the Nation's natural resources is available on the Natural Resources Conservation Service homepage on the World Wide Web. The address is http://www.nrcs.usda.gov.

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Where To Get Updated Information

The soil properties and interpretations included in this survey were current as of August 2003. The most current information is available through the NRCS Soil Data Mart Website at http://soildatamart.nrcs.usda.gov/

Additional information is available from the Natural Resources Conservation Service (NRCS) Field Office Technical Guide at Brooklyn Center, Minnesota, or online at www.nrcs.usda.gov/technical/efotg/. The data in the Field Office Technical Guide are updated periodically.

Additional information about soils and about NRCS is available through the Minnesota NRCS Web page at www.mn.nrcs.usda.gov.

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Foreword

This soil survey contains information that affects land use planning in this survey area. It contains predictions of soil behavior for selected land uses. The survey also highlights soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

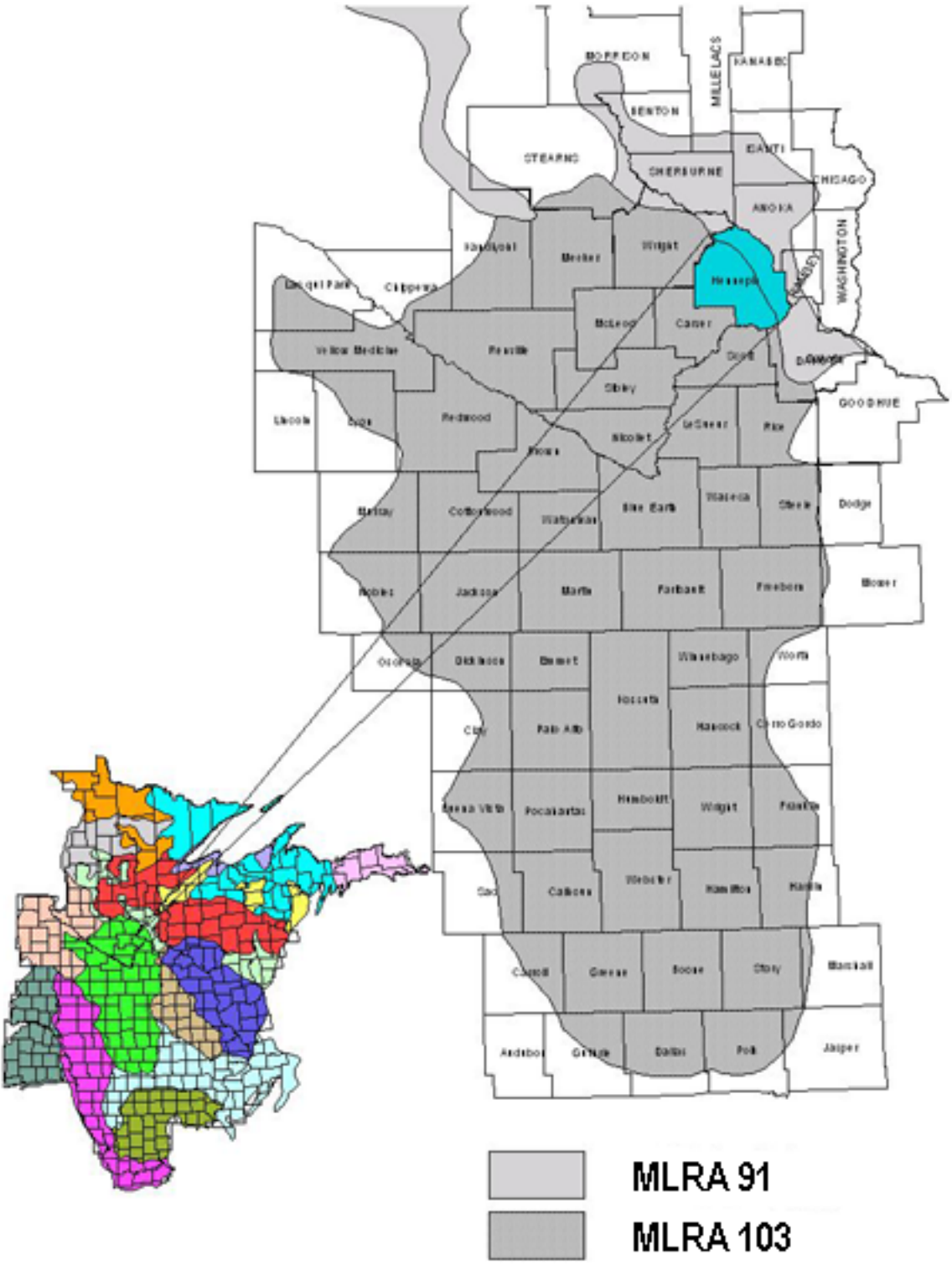
This soil survey is designed for many different users. Farmers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each soil is shown on the soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

William Hunt
State Conservationist
Natural Resources Conservation Service



Location of Hennepin County and MLRAs 91 and 103 in Region 10.

Soil Survey of
Hennepin County, Minnesota

By Kim Steffen, Natural Resources Conservation Service

Fieldwork (2000) by Kim Steffen, Peter Hartman, and Thomas Jackson, Natural Resources Conservation Service

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with the Minnesota Agricultural Experiment Station and Board of Water and Soil Resources

How This Survey Was Made

This survey was made to provide updated information about the soils and miscellaneous areas in the survey area, which is in Region 10 and in Major Land Resource Areas 91 and 103. Region 10 is an administrative division of the Natural Resources Conservation Service. Major land resource areas (MLRAs) are geographically associated land resource units that share a common land use, elevation and topography, climate, water, soils, and vegetation (USDA, 1981). Hennepin County is a subset of MLRAs 91 and 103. Map unit design and the detailed soil descriptions are based on the occurrence of each soil throughout the MLRA. In some places in this publication, a soil may be referred to that was not mapped in the Hennepin County subset but that is representative of the MLRA.

The information includes a description of the soils and miscellaneous areas and their location and a discussion of their properties and the subsequent effects on suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landscape or segment of the landscape. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landscape, soil scientists develop a concept, or model, of how the soils were formed. Thus, during mapping, this model enables the soil scientists to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Individual soils on the landscape commonly merge into one another as their characteristics gradually change. To construct an accurate map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they observed. The maximum depth of observation was about 80 inches (6.7 feet). Soil scientists noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, soil reaction, and other features that enable them to identify soils. After describing the soils in the survey area and

determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Interpretations are modified as necessary to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a zone in which the soil moisture status is wet within certain depths in most years, but they cannot predict that this zone will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

The descriptions, names, and delineations of the soils in this survey area may not fully agree with those of the soils in adjacent survey areas. Differences are the result of a better knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

Formation and Classification of the Soils

This section relates the soils in the survey area to the major factors of soil formation and describes the system of soil classification.

Formation of the Soils

Soil is produced by the action of soil-forming processes on materials deposited or accumulated by geologic forces. The characteristics of the soil in a given area are determined by (1) the physical and mineralogical composition of the parent material; (2) the climate under which the soil material has accumulated and existed since accumulation; (3) the living organisms on and in the soil, mainly vegetation; (4) the relief, or lay of the land; and (5) the length of time the forces of soil formation have acted on the soil material. The relative effect of each of these factors is reflected in the soil profile.

During the transformation of the parent material into soil, minerals are weathered and organic matter accumulates. Material in suspension or in solution moves downward through the soil, and new chemical compounds and new minerals form.

In Hennepin County, differences in parent material and vegetation account for most of the differences among the soils. Climate and relief are fairly uniform throughout the county, and all of the soils have been developing for about the same length of time.

All five factors of soil formation are interrelated. When one factor changes, changes in the other four factors result. The individual factors of soil formation are described separately in the paragraphs that follow.

Climate

Given adequate time, climate will eventually dominate the soil-forming process. Temperature and precipitation are the most commonly measured climatic factors that influence soil formation. Climate influences the chemical and physical reactions that are required for the development of the soil profile. Climate also influences the natural vegetation that grows in a particular region. Hennepin County has a subhumid, continental climate that favored the growth of both grassland and forest vegetation.

The temperature varies widely from summer to winter in Hennepin County. Generally, the soils are frozen 4 or 5 months each year. Temperature influences the physical, chemical, and biological activities that affect mineral weathering and microbial activities in soils. The rate of chemical and biological processes responsible for soil formation decreases during the winter because mineral weathering or microbial activity does not occur when the soils are frozen. Alternate freezing and thawing cycles in the fall and spring create expansion and contraction pressures that rupture mineral material and increase the surface area available for mineral weathering. These cycles also play a role in the development of soil structure. Temperature influences the accumulation and decomposition of organic matter in soils. As the temperature rises, the rate of organic decomposition and nutrient cycling increases. Temperature controls effective rainfall through its influence on potential evapotranspiration, which increases with increasing mean annual temperature.

Precipitation is essential to soil formation. Water is necessary for plant and animal growth and for the chemical reactions that involve mineral weathering. Water transports colloidal material and dissolved solids from one part of the profile to another. It transports the material downward or completely out of the profile through leaching, or it transports soluble salts upward through capillary action.

Living Organisms

The soils in the survey area formed under prairie grasses, forbs, and forest vegetation. The largest area of grassland that existed in the survey area is the outwash plain along the Mississippi River, but even here, oaks have invaded to some extent. Hubbard and Dorset soils formed in this area. These soils are classified as Mollisols. Melanization, the darkening of soil by the addition of organic matter, is the dominant soil-forming process in Mollisols. Most of the growth in grassland plant communities occurs in the roots rather than in the upper parts of the plant. Therefore, most of the organic matter added to grassland soils is incorporated directly into the soil upon the dieback of

the roots, thus giving Mollisols a thick, dark surface soil horizon.

Soils that form under forest vegetation typically have a surface soil horizon that is thinner and lighter in color than that of the soils that formed under grasses because the organic matter biomass accumulation under forests is less than under grasses. Forested soils are also characterized by a loss of oxides and clay in some horizons and an accumulation in other horizons. The soil horizon in which clays and oxides accumulate is referred to as an argillic horizon. Many of the soils in Hennepin County, such as Lester and Angus soils, exhibit characteristics typical of soils that formed under both grassland and forest vegetation. The survey area is in a transition zone.

Micro-organisms are important in sizing and reworking organic and mineral material in the soil profile. This mixing increases the surface area available for weathering and decomposition of minerals and organic material. Insects, earthworms, and rodents mix the soil and form channels that influence the movement of air and water through the soil.

Humans can affect soil formation by altering the soil-forming processes. They change the kind of vegetation in an area and alter the rates of runoff and water infiltration.

Topography

Relief is an important factor in soil formation because it affects drainage, aeration, and erosion. Differences in relief can account for the development of different soils in similar parent material. Because relief influences runoff and drainage, it can affect the types of vegetation present and the chemical changes on and in the soil. Soil profile development occurs most rapidly on well drained, gentle slopes. Soil development is very slow on steep slopes where runoff is rapid, infiltration is slow, and geologic erosion removes the surface soil about as quickly as it forms. Excessive runoff reduces the amount of water that is available to leach the soil and for use by plants, and it can increase the hazard of erosion.

Topographic position on the landscape affects the drainage class of the soil.

Differences in topography also influence the development of different soils that formed in the same kind of parent material. For example, Lester, Le Sueur, Cordova, and Glencoe soils all formed in calcareous, gray till. The drainage class of each soil is predictable based on the particular landscape position of each. Lester soils formed mainly on sloping side slopes and are well drained; Le Sueur soils formed in nearly level and slightly sloping areas and are somewhat poorly drained; the poorly drained Cordova soils formed in level areas where runoff was very slow; and the very poorly drained Glencoe soils are in depressions that are ponded with water.

Parent Material

Hennepin County was covered by drift of the Grantsburg sublobe. The drift is composed of relatively recent material derived through the reworking of older deposits. The thickness of the drift ranges from a few feet in the southeast corner of the county near Fort Snelling to about 450 feet in preglacial valleys. In most places the drift is 100 to 200 feet deep. The most extensive sources of parent material are glacial till and glacial outwash. Smaller areas consist of alluvium, glaciolacustrine deposits, and organic material.

The differences among these parent materials account for many of the differences in the soils. Parent material is a mixture of clay, unweathered minerals, and rock fragments that vary widely in their composition and density.

Glacial till—Glacial till refers to drift that is not stratified. A number of continental glaciers are believed to have covered all of Hennepin County. The material deposited by these glaciers lies deeply buried under the more recent Wisconsin glacial deposits. The uppermost deposits were laid down during the late stages of what geologists refer to as the Wisconsin Glaciation. This glacial age deposited different types of glacial material and provided the parent material in which the soils in Hennepin County formed.

The oldest drift was deposited by the ice of the Superior lobe, which flowed into the area from the north and covered the entire county. This glacier deposited till that is reddish brown, generally sandy in texture, and noncalcareous. This material is commonly known as red till. Pebbles of basalt, felsite, and red sandstone are common. Kingsley soils formed in red till.

Somewhat later, the Grantsburg sublobe, a protrusion of the Des Moines lobe, advanced into the area. This lobe moved in a northeasterly direction across the county and followed the lowland across the east-central part of the state. The till deposited by the Des Moines lobe is commonly referred to as gray till. The gray till covers nearly all of the red till, except in small areas in the eastern part of the county. In some places the Grantsburg sublobe picked up till previously deposited by the Superior lobe; consequently, complex mixtures of reddish brown and light olive brown drift were deposited in some areas.

The till of this last glaciation is grayish brown or light

olive brown in areas where drainage is good and the material had access to air. In poorly drained areas, the till is olive gray. The gray till is derived mostly from limestone and shale particles, but it contains enough granite and sandstone to provide an abundance of minerals. This material is calcareous and contains many limestone pebbles. The content of carbonates is high (15 to 25 percent), and the material effervesces strongly with hydrochloric acid. In most places this till is friable loam that contains 18 to 24 percent clay, 30 to 40 percent silt, and 35 to 50 percent sand. Lester and Nessel soils formed in gray till.

In the western part of Medina, the eastern two-thirds of Independence, the eastern half of Minnetrista, and the western part of Orono and in small scattered tracts elsewhere, the loam till is mantled with a veneer of clayey till, 3 to 20 feet thick. The texture is typically clay loam. This material appears to be denser than the loam till, generally contains more shale, and has a greater concentration of lime carbonates along fracture planes. Kilkenny soils formed in this clayey till.

Glaciolacustrine deposits—During the retreat of the Grantsburg sublobe, it appears that ice stagnated in many parts of the county. Lakes probably formed in depressions in the ice in the late stages of melting, and the bottoms of the lakes or ponds rested on gray till and the walls formed by the melting ice. Lacustrine sediments, 2 to more than 10 feet in thickness, were deposited in these glacial lakes. These sediments occupy irregular tracts ranging from 2 acres to about 160 acres in size, mostly in the central and southwestern parts of the county. The sediments have a rather abrupt margin, and the depth of sediment varies greatly within short distances. Most of the sediments are silty clay in the upper 2 to 5 feet and silt loam below that depth. Bygland and Minnetonka are examples of soils that formed in lacustrine sediments.

Glacial outwash or collapsed alluvium—As the stagnant ice melted, alluvium consisting of sand and gravel was deposited in places on the lower lying stagnant ice. When the ice below finally melted, an undulating to hilly landscape resulted.

The largest area of glacial outwash or collapsed alluvium occurs in the southern part of the county near the Minnesota River. The landscape in this area is undulating to hilly. The parent material includes stratified sand and gravel with a $^1/_2$-foot to 5-foot veneer of loamy material. A number of smaller areas of glacial outwash or collapsed alluvium also occur in the county. A gently undulating to rolling area occurs in a belt $^1/_4$ mile to 2 miles wide between Delano and Dayton. The parent material in this area consists mainly of sand and of sand with a thin mantle of loamy alluvium. Two small areas of outwash or collapsed alluvium that consists mainly of stratified sand and gravel with a thin mantle of loamy alluvium are in the east-central part of the county. One area is just north of Gleason Lake and extends in a belt $^1/_4$ mile to $1^1/_2$ miles wide to the western shore of Medicine Lake. The other area occurs just off the eastern side of Lake Minnetonka.

In places in the eastern part of the county, the coarse alluvium probably filled crevasses in the stagnant ice. When the ice field melted, the coarse alluvium remained as an elevated ridge. Crevasse ridges range from 50 to 125 feet in height, from 200 to 500 feet in width, and from 500 feet to $1^1/_2$ miles in length (Lueth, 1974).

Finally, the Grantsburg sublobe retreated westward, and as a result the Mississippi Valley was uncovered. Meltwater from the wasting Des Moines lobe filled the valley in Hennepin County with coarse alluvium. This coarse alluvium, referred to by some as stream outwash, occupies an extensive area in the northeastern part of the county. This material is mainly sand, but small areas of stratified calcareous sand and gravel are near Osseo. Hubbard soils formed in sandy alluvium. Dorset soils formed in a thin, loamy veneer over stratified sand and gravel. The gravel and sand deposits are mainly more than 20 feet in thickness, but in a few places they are only a few feet thick over gray or red till.

In the extreme southeast corner of the county, the coarse alluvium is underlain by limestone and sandstone bedrock within a depth of 5 feet.

As the glacier retreated, large blocks of ice were left in the till and outwash. The melting of the ice blocks produced depressions in all of the glacial deposits, and most of these depressions are now lakes or marsh. Organic soils developed in the depressions where water stood for part of the year and along drainageways that were frequently flooded. The organic material ranges from 1 foot to more than 10 feet in thickness.

Recent alluvium—Recent alluvium refers to alluvium that has been deposited by streams during past glacial times. Recent alluvium was deposited on the flood plains of all the streams in the county. The largest areas of alluvium are on the broad flood plains along the Minnesota River. The material varies widely in color, texture, and reaction. Chaska soils are examples of soils that formed in alluvium. In most places the material is too recent for a profile to have formed.

Time

The length of time the parent material has been in place and exposed to the soil-forming processes is an important factor in soil formation. Time is required for the parent material to be changed into a natural body that has genetically related horizons.

A mature soil is one that has well defined horizons. An immature soil is one that shows little or no horizonation. Because of differences in parent material, climate, relief, and organisms, soils that have been developing for about the same length of time have not necessarily reached the same degree of profile development. If the parent material weathers slowly, profile development is slow. If the slope is steep, soil is removed almost as soon as it forms and, consequently, no well defined horizons develop. In terms of geologic time, the soils in Hennepin County are quite young.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1998 and 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 1 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Mollisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Aquoll (*Aqu*, meaning water, plus *oll*, from Mollisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Endoaquolls (*Endo*, meaning within, plus *aquoll*, the suborder of the Mollisols that has an aquic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other known kind of soil. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective Typic identifies the subgroup that typifies the great group. An example is Typic Endoaquolls.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, superactive, calcareous, mesic Typic Endoaquolls.

SERIES. The series consists of soils that have similar horizons in their profile. The horizons are similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. The texture of the surface layer or of the substratum can differ within a series. The soils of the Canisteo series are fine-loamy, mixed, superactive, calcareous, mesic Typic Endoaquolls.

The Official Soil Series Descriptions (OSDs) provide the most current information about the series mapped in Hennepin County. These descriptions are available on the Web at http://soils.usda.gov.

Table 1.--Classification of the Soils

Soil name	Family or higher taxonomic class
Algansee	Mixed, mesic Aquic Udipsamments
Almora	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, frigid Alfic Argiudolls
Angus	Fine-loamy, mixed, superactive, mesic Mollic Hapludalfs
Anoka	Coarse-loamy, mixed, superactive, frigid Lamellic Hapludalfs
Arvilla	Sandy, mixed, frigid Calcic Hapludolls
Belview	Fine-loamy, mixed, superactive, mesic Typic Calciudolls
Biscay	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Endoaquolls
Blue Earth	Fine-silty, mixed, superactive, calcareous, mesic Mollic Fluvaquents
Braham	Loamy, mixed, superactive, frigid Oxyaquic Hapludalfs
Brouillett	Fine-loamy, mixed, superactive, mesic Aquic Cumulic Hapludolls
Bygland	Fine, smectitic, frigid Oxyaquic Vertic Argiudolls
Canisteo	Fine-loamy, mixed, superactive, calcareous, mesic Typic Endoaquolls
Cokato	Fine-loamy, mixed, superactive, mesic Typic Argiudolls
Cordova	Fine-loamy, mixed, superactive, mesic Typic Argiaquolls
Corliss	Mixed, frigid Typic Udipsamments
Crowfork	Mixed, mesic Psammentic Argiudolls
Darfur	Coarse-loamy, mixed, superactive, mesic Typic Endoaquolls
Dassel	Coarse-loamy, mixed, superactive, mesic Typic Endoaquolls
Derrynane	Fine, smectitic, mesic Cumulic Vertic Endoaquolls
Dorset	Coarse-loamy, mixed, superactive, frigid Calcic Argiudolls
Duelm	Sandy, mixed, frigid Oxyaquic Hapludolls
Dundas	Fine-loamy, mixed, superactive, mesic Mollic Endoaqualfs
Eden Prairie	Coarse-loamy, mixed, superactive, mesic Typic Argiudolls
Elkriver	Coarse-loamy, mixed, superactive, frigid Cumulic Hapludolls
Fedji	Sandy over loamy, mixed, superactive, mesic Typic Hapludolls
Finchford	Sandy, mixed, mesic Entic Hapludolls
Foldahl	Sandy over loamy, mixed, superactive, frigid Oxyaquic Hapludolls
Forada	Coarse-loamy, mixed, superactive, frigid Typic Endoaquolls
Fordum	Coarse-loamy, mixed, superactive, nonacid, frigid Mollic Fluvaquents
Forestcity	Fine-loamy, mixed, superactive, mesic Typic Argiaquolls
Glencoe	Fine-loamy, mixed, superactive, mesic Cumulic Endoaquolls
Gonvick	Fine-loamy, mixed, superactive, frigid Aquic Argiudolls
Good Thunder	Fine, smectitic, mesic Aquertic Argiudolls
Gotham	Mixed, mesic Psammentic Hapludalfs
Granby	Sandy, mixed, mesic Typic Endoaquolls
Grays	Fine-silty, mixed, superactive, mesic Oxyaquic Hapludalfs
Hamel	Fine-loamy, mixed, superactive, mesic Typic Argiaquolls
Hanlon	Coarse-loamy, mixed, superactive, mesic Cumulic Hapludolls
Hawick	Sandy, mixed, mesic Entic Hapludolls
Houghton	Euic, mesic Typic Haplosaprists
Hubbard	Sandy, mixed, frigid Entic Hapludolls
Isan	Sandy, mixed, frigid Typic Endoaquolls
Kasota	Clayey over sandy or sandy-skeletal, mixed, superactive, mesic Typic Argiudolls
Kilkenny	Fine, smectitic, mesic Oxyaquic Vertic Hapludalfs
Kingsley	Coarse-loamy, mixed, superactive, mesic Mollic Hapludalfs
Klossner	Loamy, mixed, euic, mesic Terric Haplosaprists
Koronis	Fine-loamy, mixed, superactive, mesic Mollic Hapludalfs
Kost	Sandy, mixed, frigid Entic Hapludolls
Kratka	Sandy over loamy, mixed, superactive, frigid Typic Endoaquolls
Langola	Coarse-loamy, mixed, superactive, frigid Oxyaquic Argiudolls
Le Sueur	Fine-loamy, mixed, superactive, mesic Aquic Argiudolls
Lerdal	Fine, smectitic, mesic Aeric Vertic Epiaqualfs
Lester	Fine-loamy, mixed, superactive, mesic Mollic Hapludalfs
Lindaas	Fine, smectitic, frigid Typic Argiaquolls
Litchfield	Sandy, mixed, mesic Aquic Hapludolls
Lundlake	Fine-loamy, mixed, superactive, mesic Cumulic Endoaquolls
Malardi	Coarse-loamy, mixed, superactive, mesic Typic Argiudolls
Marcellon	Fine-loamy, mixed, superactive, mesic Aquic Argiudolls
Markey	Sandy or sandy-skeletal, mixed, euic, frigid Terric Haplosaprists
Mayer	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, calcareous, mesic Typic Endoaquolls

Table 1.--Classification of the Soils--Continued

Soil name	Family or higher taxonomic class
Mazaska	Fine, smectitic, mesic Vertic Argiaquolls
Medo	Loamy, mixed, euic, mesic Terric Haplosaprists
Metea	Loamy, mixed, active, mesic Arenic Hapludalfs
Minneiska	Coarse-loamy, mixed, superactive, calcareous, mesic Mollic Udifluvents
Minnetonka	Fine, smectitic, mesic Vertic Argiaquolls
Moon	Fine-loamy, mixed, active, mesic Oxyaquic Hapludalfs
Mosford	Sandy, mixed, frigid Typic Hapludolls
Muskego	Coprogenous, euic, mesic Limnic Haplosaprists
Nessel	Fine-loamy, mixed, superactive, mesic Oxyaquic Hapludalfs
Okoboji	Fine, smectitic, mesic Cumulic Vertic Endoaquolls
Oshawa	Fine-loamy, mixed, superactive, calcareous, mesic Fluvaquentic Endoaquolls
Rasset	Coarse-loamy, mixed, superactive, mesic Typic Argiudolls
Ridgeton	Fine-loamy, mixed, superactive, mesic Pachic Hapludolls
Rushriver	Coarse-loamy, mixed, superactive, calcareous, mesic Mollic Fluvaquents
Sandberg	Sandy, mixed, frigid Calcic Hapludolls
Sedgeville	Coarse-loamy, mixed, superactive, frigid Fluvaquentic Endoaquolls
Seelyeville	Euic, frigid Typic Haplosaprists
Shields	Fine, smectitic, mesic Vertic Epiaqualfs
Shorewood	Fine, smectitic, mesic Aquertic Argiudolls
Soderville	Sandy, mixed, frigid Oxyaquic Hapludalfs
Southhaven	Fine-loamy, mixed, superactive, frigid Cumulic Hapludolls
Suckercreek	Coarse-loamy, mixed, superactive, calcareous, mesic Fluvaquentic Endoaquolls
Tadkee	Sandy over loamy, mixed, superactive, nonacid, mesic Mollic Endoaquents
Terril	Fine-loamy, mixed, superactive, mesic Cumulic Hapludolls
Tomall	Coarse-loamy, mixed, superactive, mesic Cumulic Hapludolls
Two Inlets	Mixed, frigid Psammentic Hapludalfs
Udipsamments	Mixed Udipsamments
Verndale	Coarse-loamy, mixed, superactive, frigid Typic Argiudolls
Waukon	Fine-loamy, mixed, superactive, frigid Mollic Hapludalfs
Winterfield	Mixed, frigid Aquic Udipsamments
Zimmerman	Mixed, frigid Lamellic Udipsamments

Soil Map Unit Descriptions

This section includes the soil map unit descriptions for the soil series mapped in Hennepin County.

Characteristics of the soil and the material in which it formed are identified for each soil series. A brief description of the soil profile is provided in the map unit descriptions. For more information about a soil series, the official series description can be viewed or downloaded from the Web. The detailed descriptions follow standards in the "Soil Survey Manual" (Soil Survey Division Staff, 1993). Many of the technical terms used in the descriptions are defined in "Keys to Soil Taxonomy" (Soil Survey Staff, 1998).

The map units on the soil maps in this survey represent the soils or miscellaneous areas in the survey area. These soils or miscellaneous areas are listed as individual components in the map unit descriptions. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses. More information about each map unit is provided in the tables (see Contents).

A map unit delineation on the soil maps represents an area on the landscape. It is identified by differences in the properties and taxonomic classification of components and by the percentage of each component in the map unit.

Components that are dissimilar, or contrasting, are identified in the map unit description. Dissimilar components are those that have properties and behavioral characteristics divergent enough from those of the major components to affect use or to require different management. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps.

Components that are similar to the major components (noncontrasting) are not identified in the map unit description. Similar components are those that have properties and behavioral characteristics similar enough to those of the major components that they do not affect use or require different management.

The presence of multiple components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into segments that have similar use and management requirements. The delineation of such landscape segments on the map provides sufficient information for the development of resource plans, but if intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol is used for each map unit on the soil maps. This symbol precedes the map unit name in the map unit descriptions. Each description includes general information about the unit. The map unit descriptions include representative values in feet and the months in which wet soil moisture status is highest and lowest in the soil profile and ponding is shallowest and deepest on the soil surface. They also include the classes of flooding and the months in which flooding is least and most likely to occur. Tables 20, 21, and 22 provide a complete display of this data for every month of the year. The available water capacity given in each map unit description is calculated for all horizons in the upper 60 inches of the soil profile. The organic matter content displayed in each map unit description is calculated for all horizons in the upper 10 inches of the soil profile, except those that represent the surface duff layer on forested soils. Table 18 provides a complete display of available water capacity and organic matter content by horizon.

The principal hazards and limitations to be considered in planning for specific uses are described in other sections of this survey.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer or of the underlying layers, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer or of the underlying layers. They also can differ in slope, stoniness, salinity, wetness, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. The name of a soil phase commonly indicates a feature that affects use or management. For example, Hubbard loamy sand,

0 to 2 percent slopes, is a phase of the Hubbard series.

A map unit is named for the component or components that make up a dominant percentage of the map unit. Many map units consist of one dominant component. These map units are consociations. Cordova loam, 0 to 2 percent slopes, is an example.

Some map units are made up of two or more dominant components. These map units are complexes or undifferentiated groups.

A *complex* consists of two or more components in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. Attempting to delineate the individual components of a complex would result in excessive clutter that could make the map illegible. The pattern and proportion of the components are somewhat similar in all areas. Lester-Kilkenny complex, 18 to 25 percent slopes, is an example.

An *undifferentiated group* is made up of two or more components that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the components in a mapped area are not uniform. An area can be made up of only one of the dominant components, or it can be made up of all of them. Medo, Dassel, and Biscay soils, ponded, 0 to 1 percent slopes, is an undifferentiated group in this survey area.

This survey includes miscellaneous areas. Such areas have little or no soil material and support little or no vegetation. Urban land is an example.

The abbreviation “MAP” in a map unit name stands for “mean annual precipitation.” The numbers that follow the abbreviation refer to a range in inches.

Table 2 gives the acreage and proportionate extent of each map unit. Other tables (see Contents) give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

D1B—Anoka and Zimmerman soils, terrace, 2 to 6 percent slopes

Component Description

Anoka, terrace, and similar soils

Extent: 30 to 60 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Summits, shoulders, and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 10 inches; loamy fine sand
E,E&Bt—10 to 60 inches; fine sand

Zimmerman, terrace, and similar soils

Extent: 30 to 60 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes, shoulders, and summits
Slope range: 2 to 4 percent
Texture of the surface layer: Fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 0.9 percent
Typical profile:
Ap—0 to 9 inches; fine sand
E,E&Bt—9 to 60 inches; fine sand

Kost

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 14 inches; loamy fine sand
Bw—14 to 33 inches; fine sand
C—33 to 60 inches; sand

D1C—Anoka and Zimmerman soils, terrace, 6 to 12 percent slopes

Component Description

Anoka, terrace, and similar soils

Extent: 35 to 65 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes, shoulders, and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 10 inches; loamy fine sand
E,E&Bt—10 to 60 inches; fine sand

Zimmerman, terrace, and similar soils

Extent: 35 to 65 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Summits, shoulders, and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 0.9 percent
Typical profile:
Ap—0 to 9 inches; fine sand
E,E&Bt—9 to 60 inches; fine sand

Kost

Extent: 5 to 15 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes
Slope range: 6 to 10 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 14 inches; loamy fine sand
Bw—14 to 33 inches; fine sand
C—33 to 60 inches; sand

D2A—Elkriver fine sandy loam, 0 to 2 percent slopes, rarely flooded

Component Description

Elkriver, rarely flooded, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Alluvium
Flooding does not occur (months): January, February, July, August, September, October, November, December
Flooding is most likely (frequency, months): Rare (March, April, May, June)
Wet soil moisture status is highest (depth, months): 3 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (September)
Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
A1,A3—10 to 35 inches; fine sandy loam
Bw—35 to 39 inches; fine sandy loam
2C—39 to 80 inches; sand

Mosford, rarely flooded

Extent: 0 to 15 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Alluvium
Flooding does not occur (months): January, February, July, August, September, October, November, December
Flooding is most likely (frequency, months): Rare (March, April, May, June)
Wet soil moisture status is highest (depth, months): 5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 5 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap—0 to 11 inches; fine sandy loam
Bw1—11 to 16 inches; fine sandy loam
Bw2,C2—16 to 57 inches; fine sand
C3—57 to 80 inches; gravelly sand

Elkriver, occasionally flooded

Extent: 0 to 10 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 7.4 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
A1,A3—10 to 26 inches; fine sandy loam
Bw—26 to 32 inches; very fine sandy loam
2C—32 to 80 inches; sand

D3A—Elkriver fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Component Description

Elkriver, occasionally flooded, and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 7.4 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
A1,A3—10 to 26 inches; fine sandy loam
Bw—26 to 32 inches; very fine sandy loam
2C—32 to 80 inches; sand

Fordum, frequently flooded

Extent: 5 to 20 percent of the unit
Geomorphic setting: Flood plains

Position on the landform: Drainageways
Slope range: 0 to 1 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.8 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 5.2 percent
Typical profile:
A—0 to 7 inches; fine sandy loam
Cg—7 to 28 inches; sandy loam
2Cg—28 to 80 inches; sand

Winterfield, occasionally flooded

Extent: 0 to 10 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, August, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 2.4 percent
Typical profile:
A—0 to 8 inches; loamy fine sand
C1,C2—8 to 20 inches; sand
C3,C5—20 to 80 inches; sand

D4A—Dorset sandy loam, 0 to 2 percent slopes

Component Description

Dorset and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 12 inches; sandy loam
Bt—12 to 20 inches; coarse sandy loam
2BC—20 to 27 inches; gravelly coarse sand
2C—27 to 60 inches; gravelly coarse sand

Verndale, acid substratum

Extent: 0 to 15 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam
2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

Almora

Extent: 0 to 5 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.7 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap—0 to 10 inches; loam
BE—10 to 14 inches; fine sandy loam
Bt—14 to 36 inches; loam
2Bt—36 to 41 inches; loamy sand
2C—41 to 80 inches; gravelly coarse sand

D4B—Dorset sandy loam, 2 to 6 percent slopes

Component Description

Dorset and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Summits, backslopes, and shoulders
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 12 inches; sandy loam
Bt—12 to 20 inches; coarse sandy loam
2BC—20 to 27 inches; gravelly coarse sand
2C—27 to 60 inches; gravelly coarse sand

Verndale, acid substratum

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Footslopes and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam
2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

Almora

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.7 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap—0 to 10 inches; loam
BE—10 to 14 inches; fine sandy loam
Bt—14 to 36 inches; loam
2Bt—36 to 41 inches; loamy sand
2C—41 to 80 inches; gravelly coarse sand

D4C—Dorset sandy loam, 6 to 12 percent slopes

Component Description

Dorset and similar soils

Extent: 70 to 85 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Backslopes, shoulders, and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A—0 to 11 inches; sandy loam
Bt—11 to 19 inches; sandy loam
2BC—19 to 32 inches; gravelly loamy sand
2C—32 to 80 inches; gravelly coarse sand

Verndale, acid substratum

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Backslopes and footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam
2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

Almora

Extent: 0 to 15 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.7 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap—0 to 10 inches; loam
BE—10 to 14 inches; fine sandy loam
Bt—14 to 36 inches; loam
2Bt—36 to 41 inches; loamy sand
2C—41 to 80 inches; gravelly coarse sand

D5B—Dorset-Two Inlets complex, 2 to 6 percent slopes

Component Description

Dorset and similar soils

Extent: 50 to 75 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and shoulders
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent

Typical profile:
Ap,A—0 to 11 inches; sandy loam
Bt—11 to 19 inches; sandy loam
2BC—19 to 32 inches; gravelly loamy sand
2C—32 to 80 inches; gravelly coarse sand

Two Inlets and similar soils

Extent: 20 to 30 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Shoulders
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 0.7 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bt—9 to 19 inches; gravelly loamy sand
C—19 to 80 inches; gravelly sand

Verndale, acid substratum

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Footslopes and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam
2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

Southhaven

Extent: 0 to 10 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A3—0 to 48 inches; loam
Bw—48 to 62 inches; loam
2Bw—62 to 66 inches; loamy sand
2C—66 to 80 inches; sand

D5C—Dorset-Two Inlets complex, 6 to 12 percent slopes

Component Description

Dorset and similar soils

Extent: 50 to 65 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A—0 to 11 inches; sandy loam

Bt—11 to 19 inches; sandy loam
2BC—19 to 32 inches; gravelly loamy sand
2C—32 to 80 inches; gravelly coarse sand

Two Inlets and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 0.7 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bt—9 to 19 inches; gravelly loamy sand
C—19 to 80 inches; gravelly sand

Southhaven

Extent: 5 to 15 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A3—0 to 48 inches; loam
Bw—48 to 62 inches; loam
2Bw—62 to 66 inches; loamy sand
2C—66 to 80 inches; sand

Verndale, acid substratum

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and footslopes
Slope range: 6 to 9 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam
2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

D5D—Dorset-Two Inlets complex, 12 to 18 percent slopes

Component Description

Dorset and similar soils

Extent: 45 to 60 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; sandy loam
Bt—9 to 14 inches; sandy loam

2Bt,2BC—14 to 25 inches; gravelly loamy sand
2C—25 to 80 inches; gravelly sand

Two Inlets and similar soils

Extent: 25 to 40 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Shoulders
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 0.7 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bt—9 to 19 inches; gravelly loamy sand
C—19 to 80 inches; gravelly sand

Southhaven

Extent: 5 to 15 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A3—0 to 48 inches; loam
Bw—48 to 62 inches; loam
2Bw—62 to 66 inches; loamy sand
2C—66 to 80 inches; sand

Verndale, acid substratum

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Footslopes and backslopes
Slope range: 6 to 9 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam
2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

D6A—Verndale sandy loam, acid substratum, 0 to 2 percent slopes

Component Description

Verndale, acid substratum, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam

2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

Dorset

Extent: 0 to 15 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 12 inches; sandy loam
Bt—12 to 20 inches; coarse sandy loam
2BC—20 to 27 inches; gravelly coarse sand
2C—27 to 60 inches; gravelly coarse sand

Hubbard

Extent: 0 to 5 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,AB—0 to 20 inches; loamy sand
Bw—20 to 32 inches; loamy sand
BC,C—32 to 80 inches; sand

D6B—Verndale sandy loam, acid substratum, 2 to 6 percent slopes

Component Description

Verndale, acid substratum, and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam
2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

Dorset

Extent: 0 to 15 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 12 inches; sandy loam
Bt—12 to 20 inches; coarse sandy loam

2BC—20 to 27 inches; gravelly coarse sand
2C—27 to 60 inches; gravelly coarse sand

Hubbard

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Shoulders
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 23 inches; loamy sand
BC,C—23 to 80 inches; sand

D6C—Verndale sandy loam, acid substratum, 6 to 12 percent slopes

Component Description

Verndale, acid substratum, and similar soils

Extent: 80 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam
2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

Dorset

Extent: 15 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Backslopes and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A—0 to 11 inches; sandy loam
Bt—11 to 19 inches; sandy loam
2BC—19 to 32 inches; gravelly loamy sand
2C—32 to 80 inches; gravelly coarse sand

Hubbard

Extent: 5 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap,AB—0 to 12 inches; loamy sand
Bw—12 to 33 inches; coarse sand
C—33 to 80 inches; coarse sand

D7A—Hubbard loamy sand, 0 to 2 percent slopes

Component Description

Hubbard and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,AB—0 to 20 inches; loamy sand
Bw—20 to 32 inches; loamy sand
BC,C—32 to 80 inches; sand

Mosford

Extent: 0 to 10 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 13 inches; sandy loam
Bw—13 to 16 inches; coarse sandy loam
2Bw—16 to 35 inches; coarse sand
2C—35 to 80 inches; sand

D7B—Hubbard loamy sand, 2 to 6 percent slopes

Component Description

Hubbard and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits, shoulders, and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 23 inches; loamy sand
BC,C—23 to 80 inches; sand

Mosford

Extent: 0 to 15 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 1 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: More than 60 inches
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 13 inches; sandy loam
Bw—13 to 16 inches; coarse sandy loam
2Bw—16 to 35 inches; coarse sand
2C—35 to 80 inches; sand

D7C—Hubbard loamy sand, 6 to 12 percent slopes

Component Description

Hubbard and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Backslopes, summits, and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap,AB—0 to 12 inches; loamy sand
Bw—12 to 33 inches; coarse sand
C—33 to 80 inches; coarse sand

Sandberg

Extent: 0 to 15 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy coarse sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A—0 to 14 inches; loamy coarse sand
Bw—14 to 32 inches; gravelly coarse sand
C—32 to 80 inches; sand

Mosford

Extent: 0 to 15 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 1 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 13 inches; sandy loam
Bw—13 to 16 inches; coarse sandy loam
2Bw—16 to 35 inches; coarse sand
2C—35 to 80 inches; sand

D8B—Sandberg loamy coarse sand, 2 to 6 percent slopes

Component Description

Sandberg and similar soils

Extent: 90 to 100 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Summits, shoulders, and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy coarse sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A—0 to 14 inches; loamy coarse sand

Bw—14 to 32 inches; gravelly coarse sand
C—32 to 80 inches; sand

Arvilla, MAP >25

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Coarse sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.1 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A—0 to 14 inches; coarse sandy loam
Bw—14 to 17 inches; coarse sandy loam
2Bw,2C—17 to 80 inches; gravelly coarse sand

D8C—Sandberg loamy coarse sand, 6 to 12 percent slopes

Component Description

Sandberg and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy coarse sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A—0 to 14 inches; loamy coarse sand
Bw—14 to 32 inches; gravelly coarse sand
C—32 to 80 inches; sand

Corliss

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.5 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
Ap—0 to 7 inches; loamy sand
Bw—7 to 28 inches; coarse sand
C—28 to 80 inches; coarse sand

Southhaven

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A3—0 to 48 inches; loam
Bw—48 to 62 inches; loam
2Bw—62 to 66 inches; loamy sand
2C—66 to 80 inches; sand

D8D—Sandberg loamy coarse sand, 12 to 18 percent slopes

Component Description

Sandberg and similar soils

Extent: 75 to 90 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders and backslopes
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy coarse sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 11 inches; loamy coarse sand
Bw—11 to 27 inches; coarse sand
C—27 to 80 inches; gravelly coarse sand

Corliss

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes and summits
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.5 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
Ap—0 to 7 inches; loamy sand
Bw—7 to 28 inches; coarse sand
C—28 to 80 inches; coarse sand

Southhaven

Extent: 5 to 15 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A3—0 to 48 inches; loam
Bw—48 to 62 inches; loam
2Bw—62 to 66 inches; loamy sand
2C—66 to 80 inches; sand

D8E—Sandberg loamy coarse sand, 18 to 35 percent slopes

Component Description

Sandberg and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Backslopes and shoulders
Slope range: 18 to 35 percent
Texture of the surface layer: Loamy coarse sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
A—0 to 11 inches; loamy coarse sand
Bw—11 to 27 inches; coarse sand
C—27 to 80 inches; gravelly coarse sand

Corliss

Extent: 5 to 20 percent of the unit
Geomorphic setting: Escarpments

Position on the landform: Backslopes and summits
Slope range: 18 to 35 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.5 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
Ap—0 to 7 inches; loamy sand
Bw—7 to 28 inches; coarse sand
C—28 to 80 inches; coarse sand

Southhaven

Extent: 5 to 20 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Toeslopes and footslopes
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: More than 60 inches
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A3—0 to 48 inches; loam
Bw—48 to 62 inches; loam
2Bw—62 to 66 inches; loamy sand
2C—66 to 80 inches; sand

D10A—Forada sandy loam, 0 to 2 percent slopes

Component Description

Forada and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bg—10 to 33 inches; loam
2Cg—33 to 60 inches; sand

Depressional soil

Extent: 0 to 15 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,AB—0 to 19 inches; sandy loam
Bg—19 to 38 inches; loam
2Cg—38 to 60 inches; sand

D11A—Lindaas silt loam, 0 to 2 percent slopes

Component Description

Lindaas and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic setting: Lake plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 16 inches; silt loam
Btg—16 to 32 inches; silty clay
Cg—32 to 80 inches; silty clay loam

Lindaas, sandy substratum

Extent: 5 to 20 percent of the unit
Geomorphic setting: Lake plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Glaciolacustrine sediments over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap—0 to 14 inches; silt loam
Btg—14 to 20 inches; silty clay
Cg—20 to 62 inches; silty clay loam
2Cg—62 to 80 inches; stratified very gravelly coarse sand to loamy sand

Depressional soil

Extent: 0 to 15 percent of the unit
Geomorphic setting: Lake plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 23 inches; silt loam
Btg—23 to 30 inches; silty clay
Cg—30 to 80 inches; silty clay loam

D12B—Bygland silt loam, MAP >25, 2 to 6 percent slopes

Component Description

Bygland, MAP >25, and similar soils

Extent: 65 to 90 percent of the unit
Geomorphic setting: Hills on lake plains
Position on the landform: Summits, backslopes, and shoulders
Slope range: 2 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 3 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (July, August, September)

Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap—0 to 9 inches; silt loam
Bt—9 to 23 inches; silty clay
BC—23 to 27 inches; silt loam
C—27 to 80 inches; stratified silt loam to silty clay loam

Bygland, sandy substratum

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on lake plains
Position on the landform: Footslopes and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciolacustrine sediments over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.3 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September, December)
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 14 inches; silt loam
Bt—14 to 26 inches; silty clay
BC—26 to 38 inches; silty clay loam
C—38 to 63 inches; stratified silt loam to silty clay loam
2C—63 to 80 inches; stratified very gravelly coarse sand to loamy sand

Lindaas

Extent: 5 to 15 percent of the unit
Geomorphic setting: Lake plains
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 16 inches; silt loam
Btg—16 to 32 inches; silty clay
Cg—32 to 80 inches; silty clay loam

Depressional soil

Extent: 0 to 10 percent of the unit
Geomorphic setting: Lake plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 23 inches; silt loam
Btg—23 to 30 inches; silty clay
Cg—30 to 80 inches; silty clay loam

D12C2—Bygland silt loam, MAP >25, 6 to 12 percent slopes, eroded

Component Description

Bygland, MAP >25, and similar soils

Extent: 65 to 90 percent of the unit
Geomorphic setting: Hills on lake plains
Position on the landform: Backslopes, summits, and shoulders

Slope range: 6 to 12 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 3 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 0.9 percent
Typical profile:
Ap—0 to 7 inches; silt loam
Bt—7 to 20 inches; silty clay
BC—20 to 26 inches; silt loam
C—26 to 80 inches; stratified silt loam to silty clay loam

Bygland, sandy substratum

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on lake plains
Position on the landform: Footslopes and backslopes
Slope range: 6 to 10 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciolacustrine sediments over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.3 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September, December)
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 14 inches; silt loam
Bt—14 to 26 inches; silty clay
BC—26 to 38 inches; silty clay loam
C—38 to 63 inches; stratified silt loam to silty clay loam
2C—63 to 80 inches; stratified very gravelly coarse sand to loamy sand

Lindaas

Extent: 0 to 15 percent of the unit
Geomorphic setting: Lake plains
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 16 inches; silt loam
Btg—16 to 32 inches; silty clay
Cg—32 to 80 inches; silty clay loam

Depressional soil

Extent: 0 to 10 percent of the unit
Geomorphic setting: Lake plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 5 percent

Typical profile:
Ap,A—0 to 23 inches; silt loam
Btg—23 to 30 inches; silty clay
Cg—30 to 80 inches; silty clay loam

D13A—Langola loamy fine sand, terrace, 0 to 2 percent slopes

Component Description

Langola, terrace, and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 5.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,AB—0 to 15 inches; loamy fine sand
Bw—15 to 31 inches; loamy sand
2Bt—31 to 39 inches; sandy loam
2BC—39 to 43 inches; sandy loam
2Cd—43 to 60 inches; sandy loam

Duelm

Extent: 5 to 20 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,AB—0 to 16 inches; loamy sand
Bw—16 to 30 inches; coarse sand
C—30 to 80 inches; coarse sand

Hubbard

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,AB—0 to 20 inches; loamy sand
Bw—20 to 32 inches; loamy sand
BC,C—32 to 80 inches; sand

D13B—Langola loamy fine sand, terrace, 2 to 6 percent slopes

Component Description

Langola, terrace, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders, summits, and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, July, August, September)

Ponding: None
Available water capacity to a depth of 60 inches: 5.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,AB—0 to 15 inches; loamy fine sand
Bw—15 to 31 inches; loamy sand
2Bt—31 to 39 inches; sandy loam
2BC—39 to 43 inches; sandy loam
2Cd—43 to 60 inches; sandy loam

Hubbard

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 23 inches; loamy sand
BC,C—23 to 80 inches; sand

Duelm

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,AB—0 to 16 inches; loamy sand
Bw—16 to 30 inches; coarse sand
C—30 to 80 inches; coarse sand

D15A—Seelyeville-Markey complex, depressional, 0 to 1 percent slopes

Component Description

Seelyeville, drained, and similar soils

Extent: 50 to 100 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oap—0 to 10 inches; muck
Oa2,Oa5—10 to 60 inches; muck

Markey, drained, and similar soils

Extent: 15 to 30 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over outwash
Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 13.1 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oap,Oa2,Oa3—0 to 28 inches; muck
A—28 to 32 inches; loamy sand
Cg—32 to 80 inches; sand

Mineral soil, drained

Extent: 10 to 30 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A—0 to 18 inches; sandy loam
AB,Bg—18 to 29 inches; loamy sand
Cg—29 to 80 inches; coarse sand

D16A—Seelyeville and Markey soils, ponded, 0 to 1 percent slopes

Component Description

Seelyeville, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oa1—0 to 15 inches; muck
Oa2,Oa3—15 to 80 inches; muck

Markey, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over outwash
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 12.8 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oa—0 to 27 inches; muck
A—27 to 32 inches; loamy sand
Cg—32 to 80 inches; sand

Mineral soil, ponded

Extent: 0 to 20 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions

Slope range: 0 to 1 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A—0 to 14 inches; sandy loam
AB,Bg—14 to 34 inches; loamy sand
Cg—34 to 80 inches; coarse sand

D17A—Duelm loamy sand, 0 to 2 percent slopes

Component Description

Duelm and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Flats and slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,AB—0 to 16 inches; loamy sand
Bw—16 to 30 inches; coarse sand
C—30 to 80 inches; coarse sand

Isan

Extent: 0 to 15 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: More than 60 inches
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2 feet (August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A—0 to 14 inches; sandy loam
AB,Bg—14 to 34 inches; loamy sand
Cg—34 to 80 inches; coarse sand

Hubbard

Extent: 0 to 5 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Slight rises
Slope range: 2 to 4 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: More than 60 inches
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 23 inches; loamy sand
BC,C—23 to 80 inches; sand

D18B—Braham loamy fine sand, terrace, 2 to 5 percent slopes

Component Description

Braham, terrace, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Summits, shoulders, and backslopes

Slope range: 2 to 5 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 42 inches; sandy clay loam
2Bk—42 to 60 inches; loam

Duelm

Extent: 0 to 20 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Flats and slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,AB—0 to 16 inches; loamy sand
Bw—16 to 30 inches; coarse sand
C—30 to 80 inches; coarse sand

D19A—Fordum-Winterfield complex, 0 to 2 percent slopes, frequently flooded

Component Description

Fordum, frequently flooded, and similar soils

Extent: 50 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Drainageways
Slope range: 0 to 1 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.8 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 5.2 percent
Typical profile:
A—0 to 7 inches; fine sandy loam
Cg—7 to 28 inches; sandy loam
2Cg—28 to 80 inches; sand

Winterfield, frequently flooded, and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: More than 60 inches
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 2.4 percent
Typical profile:
A—0 to 8 inches; loamy fine sand
C1,C2—8 to 20 inches; sand
C3,C5—20 to 80 inches; sand

Fordum, occasionally flooded

Extent: 0 to 20 percent of the unit

Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 2.3 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 8.7 inches
Content of organic matter in the upper 10 inches: 7 percent
Typical profile:
Ap—0 to 9 inches; loam
Cg—9 to 38 inches; loam
2Cg—38 to 80 inches; stratified sand to silt loam

D20A—Isan sandy loam, 0 to 2 percent slopes

Component Description

Isan and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2 feet (August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A—0 to 14 inches; sandy loam
AB,Bg—14 to 34 inches; loamy sand
Cg—34 to 80 inches; coarse sand

Isan, depressional

Extent: 5 to 15 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A—0 to 14 inches; sandy loam
AB,Bg—14 to 34 inches; loamy sand
Cg—34 to 80 inches; coarse sand

Duelm

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Flats and slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,AB—0 to 16 inches; loamy sand

Bw—16 to 30 inches; coarse sand
C—30 to 80 inches; coarse sand

D21A—Isan sandy loam, depressional, 0 to 1 percent slopes

Component Description

Isan, depressional, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A—0 to 14 inches; sandy loam
AB,Bg—14 to 34 inches; loamy sand
Cg—34 to 80 inches; coarse sand

Isan

Extent: 10 to 20 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Rims of depressions
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2 feet (August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A—0 to 14 inches; sandy loam
AB,Bg—14 to 34 inches; loamy sand
Cg—34 to 80 inches; coarse sand

D23A—Southhaven loam, 0 to 2 percent slopes

Component Description

Southhaven and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A3—0 to 48 inches; loam
Bw—48 to 62 inches; loam
2Bw—62 to 66 inches; loamy sand
2C—66 to 80 inches; sand

Dorset

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Slight rises
Slope range: 2 to 4 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None

Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 11 inches; sandy loam
Bt—11 to 19 inches; sandy loam
2BC—19 to 32 inches; gravelly loamy sand
2C—32 to 80 inches; gravelly coarse sand

Mosford

Extent: 0 to 10 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 13 inches; sandy loam
Bw—13 to 16 inches; coarse sandy loam
2Bw—16 to 35 inches; coarse sand
2C—35 to 80 inches; sand

D24A—Sedgeville loam, 0 to 2 percent slopes, occasionally flooded

Component Description

Sedgeville, occasionally flooded, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: More than 60 inches
Drainage class: Poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 7 percent
Typical profile:
Ap,A—0 to 15 inches; loam
Bg—15 to 45 inches; loam
2Cg—45 to 80 inches; sand

Elkriver, occasionally flooded

Extent: 5 to 20 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 7.4 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
A1,A3—10 to 26 inches; fine sandy loam
Bw—26 to 32 inches; very fine sandy loam
2C—32 to 80 inches; sand

D25A—Soderville loamy fine sand, terrace, 0 to 3 percent slopes

Component Description

Soderville, terrace, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Stream terraces

Position on the landform: Slight swales
Slope range: 0 to 3 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, March, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 5 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
Ap—0 to 9 inches; loamy fine sand
E—9 to 24 inches; loamy fine sand
Bt—24 to 31 inches; stratified loamy fine sand to fine sandy loam
C—31 to 60 inches; sand

Forada

Extent: 0 to 20 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bg—10 to 33 inches; loam
2Cg—33 to 60 inches; sand

D26A—Foldahl loamy sand, MAP >25, 0 to 3 percent slopes

Component Description

Foldahl, MAP >25, and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over stratified sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 7.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 16 inches; loamy sand
Bw—16 to 31 inches; loamy sand
2Bw—31 to 40 inches; stratified loamy sand to sandy clay loam
2Bk—40 to 60 inches; stratified loamy sand to sandy clay loam

Hubbard

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4 inches

Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,AB—0 to 20 inches; loamy sand
Bw—20 to 32 inches; loamy sand
BC,C—32 to 80 inches; sand

Isan

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2 feet (August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A—0 to 14 inches; sandy loam
AB,Bg—14 to 34 inches; loamy sand
Cg—34 to 80 inches; coarse sand

D27A—Dorset sandy loam, loamy substratum, 0 to 2 percent slopes

Component Description

Dorset, loamy substratum, and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash over till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.2 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 12 inches; sandy loam
Bt—12 to 20 inches; coarse sandy loam
2BC—20 to 60 inches; gravelly coarse sand
3C—60 to 80 inches; loam

Dorset

Extent: 5 to 20 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 12 inches; sandy loam
Bt—12 to 20 inches; coarse sandy loam
2BC—20 to 27 inches; gravelly coarse sand
2C—27 to 60 inches; gravelly coarse sand

Southhaven

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A3—0 to 48 inches; loam

Bw—48 to 62 inches; loam
2Bw—62 to 66 inches; loamy sand
2C—66 to 80 inches; gravelly sand

D28B—Urban land-Bygland, MAP >25, complex, 1 to 6 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Lake plains
Slope range: 1 to 6 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Bygland, MAP >25, and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on lake plains
Position on the landform: Backslopes, summits, and shoulders
Slope range: 1 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 3 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap—0 to 9 inches; silt loam
Bt—9 to 23 inches; silty clay
BC—23 to 27 inches; silt loam
C—27 to 80 inches; stratified silt loam to silty clay loam

Bygland, sandy substratum

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on lake plains
Position on the landform: Backslopes
Slope range: 1 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciolacustrine sediments over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.3 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September, December)
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 14 inches; silt loam
Bt—14 to 26 inches; silty clay
BC—26 to 38 inches; silty clay loam
C—38 to 63 inches; stratified silt loam to silty clay loam
2C—63 to 80 inches; stratified very gravelly coarse sand to loamy sand

D29B—Urban land-Hubbard, bedrock substratum, complex, 0 to 8 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Stream terraces
Slope range: 0 to 8 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Hubbard, bedrock substratum, and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders and summits
Slope range: 0 to 8 percent
Texture of the surface layer: Loamy sand

Depth to restrictive feature: 40 to 80 inches to bedrock (lithic)
Drainage class: Excessively drained
Parent material: Outwash over limestone bedrock
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 23 inches; loamy sand
BC,C—23 to 60 inches; sand
2R—60 to 80 inches; unweathered bedrock

Hubbard

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes
Slope range: 0 to 8 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 23 inches; loamy sand
BC,C—23 to 80 inches; sand

Mosford

Extent: 0 to 5 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 4 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 13 inches; sandy loam
Bw—13 to 16 inches; coarse sandy loam
2Bw—16 to 35 inches; coarse sand
2C—35 to 80 inches; sand

D30A—Seelyeville and Markey soils, depressional, 0 to 1 percent slopes

Component Description

Seelyeville, surface drained, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oa1—0 to 10 inches; muck
Oa2,Oa5—10 to 80 inches; muck

Markey, surface drained, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained
Parent material: Organic material over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 15.8 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oa—0 to 36 inches; muck
A—36 to 42 inches; loamy sand
Cg—42 to 80 inches; sand

Mineral soil, surface drained

Extent: 0 to 20 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A—0 to 14 inches; sandy loam
AB,Bg—14 to 34 inches; loamy sand
Cg—34 to 80 inches; coarse sand

D31A—Urban land-Duelm complex, 0 to 2 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Stream terraces
Slope range: 0 to 2 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Duelm and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Flats and slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,AB—0 to 16 inches; loamy sand
Bw—16 to 30 inches; coarse sand
C—30 to 80 inches; coarse sand

Hubbard

Extent: 0 to 5 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Slight rises
Slope range: 2 to 4 percent
Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 23 inches; loamy sand
BC,C—23 to 80 inches; sand

Isan

Extent: 0 to 5 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2 feet (August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
A—0 to 14 inches; sandy loam
AB,Bg—14 to 34 inches; loamy sand
Cg—34 to 80 inches; coarse sand

D33B—Urban land-Dorset complex, 0 to 8 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Stream terraces
Slope range: 0 to 8 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Dorset and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Summits, shoulders, and backslopes
Slope range: 0 to 8 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 12 inches; sandy loam
Bt—12 to 20 inches; coarse sandy loam
2BC—20 to 27 inches; gravelly coarse sand
2C—27 to 60 inches; gravelly coarse sand

Verndale, acid substratum

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Footslopes and backslopes
Slope range: 0 to 8 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam

2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

Hubbard

Extent: 0 to 5 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders
Slope range: 0 to 8 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,AB—0 to 20 inches; loamy sand
Bw—20 to 32 inches; loamy sand
BC,C—32 to 80 inches; sand

D33C—Urban land-Dorset complex, 8 to 18 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Stream terraces
Slope range: 8 to 18 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Dorset and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders, summits, and backslopes
Slope range: 8 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A—0 to 11 inches; sandy loam
Bt—11 to 19 inches; sandy loam
2BC—19 to 32 inches; gravelly loamy sand
2C—32 to 80 inches; gravelly coarse sand

Verndale, acid substratum

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes and footslopes
Slope range: 8 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 19 inches; sandy loam
2Bw—19 to 28 inches; sand
2C—28 to 80 inches; sand

Hubbard

Extent: 0 to 5 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders
Slope range: 8 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 3.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap,AB—0 to 12 inches; loamy sand
Bw—12 to 33 inches; coarse sand
C—33 to 80 inches; coarse sand

D34B—Urban land-Hubbard complex, 0 to 8 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Stream terraces
Slope range: 0 to 8 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Hubbard and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders, backslopes, and summits
Slope range: 0 to 8 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 23 inches; loamy sand
BC,C—23 to 80 inches; sand

Mosford

Extent: 0 to 5 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Swales
Slope range: 0 to 4 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 13 inches; sandy loam
Bw—13 to 16 inches; coarse sandy loam
2Bw—16 to 35 inches; coarse sand
2C—35 to 80 inches; sand

D35A—Elkriver-Fordum complex, 0 to 2 percent slopes, occasionally flooded

Component Description

Elkriver, occasionally flooded, and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 7.4 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
A1,A3—10 to 26 inches; fine sandy loam

Bw—26 to 32 inches; very fine sandy loam
2C—32 to 80 inches; sand

Fordum, occasionally flooded, and similar soils

Extent: 5 to 25 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Drainageways
Slope range: 0 to 1 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.8 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 6.2 percent
Typical profile:
A—0 to 7 inches; fine sandy loam
Cg—7 to 28 inches; sandy loam
2Cg—28 to 80 inches; sand

Udipsamments

Extent: 0 to 15 percent of the unit
Geomorphic setting: Flood plains
Slope range: 0 to 2 percent
Parent material: Fill material over alluvium
Flooding: None
Ponding: None
General description: Udipsamments consist of fill material. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Winterfield, occasionally flooded

Extent: 0 to 10 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 2.4 percent
Typical profile:
A—0 to 8 inches; loamy fine sand
C1,C2—8 to 20 inches; sand
C3,C5—20 to 80 inches; sand

D37F—Dorset, bedrock substratum-Rock outcrop complex, 25 to 65 percent slopes

Component Description

Dorset, bedrock substratum, and similar soils

Extent: 65 to 95 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Summits
Slope range: 25 to 65 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 40 to 80 inches to bedrock (lithic)
Drainage class: Well drained
Parent material: Outwash over limestone bedrock
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 12 inches; sandy loam
Bt—12 to 20 inches; coarse sandy loam
2BC—20 to 27 inches; gravelly coarse sand
2C—27 to 60 inches; gravelly coarse sand
3R—60 to 80 inches; unweathered bedrock

Rock outcrop

Extent: 10 to 35 percent of the unit
Geomorphic setting: Escarpments

Position on the landform: Summits and shoulders
Slope range: 0 to 3 percent
Type of bedrock: Limestone

Hubbard, bedrock substratum

Extent: 0 to 15 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Backslopes
Slope range: 25 to 65 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: 40 to 80 inches to bedrock (lithic)
Drainage class: Excessively drained
Parent material: Outwash over limestone bedrock
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 18 inches; loamy sand
Bw—18 to 23 inches; loamy sand
BC,C—23 to 60 inches; sand
2R—60 to 80 inches; unweathered bedrock

D40A—Kratka loamy fine sand, thick solum, 0 to 2 percent slopes

Component Description

Kratka, thick solum, and similar soils

Extent: 75 to 90 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2 feet (August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 7.4 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 10 inches; loamy fine sand
Bg—10 to 30 inches; fine sand
2Bg,2Cg—30 to 60 inches; clay loam

Duelm

Extent: 5 to 15 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Flats and slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,AB—0 to 16 inches; loamy sand
Bw—16 to 30 inches; coarse sand
C—30 to 80 inches; coarse sand

Foldahl, MAP >25

Extent: 5 to 15 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over stratified sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 7.9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 16 inches; loamy sand
Bw—16 to 31 inches; loamy sand

2Bw—31 to 40 inches; stratified loamy sand to sandy clay loam
2Bk—40 to 60 inches; stratified loamy sand to sandy clay loam

D41C—Urban land-Waukon complex, 6 to 18 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Stream terraces
Slope range: 6 to 18 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Waukon and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes, summits, and shoulders
Slope range: 6 to 18 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap—0 to 8 inches; fine sandy loam
E,BE,Bt—8 to 43 inches; loam
Bk—43 to 80 inches; loam

Braham

Extent: 0 to 5 percent of the unit
Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders, backslopes, and summits
Slope range: 2 to 5 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 42 inches; sandy clay loam
2Bk—42 to 60 inches; loam

D43A—Gonvick loam, terrace, 1 to 3 percent slopes

Component Description

Gonvick, terrace, and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
Ap,A—0 to 12 inches; loam
Bt—12 to 30 inches; clay loam
Bk,C—30 to 60 inches; loam

Braham

Extent: 5 to 25 percent of the unit
Geomorphic setting: Stream terraces
Position on the landform: Slight rises
Slope range: 2 to 4 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 42 inches; sandy clay loam
2Bk—42 to 60 inches; loam

GP—Pits, gravel-Udipsamments complex

Component Description

Pits, gravel

Extent: 50 to 100 percent of the unit
Geomorphic setting: Moraines, outwash plains, and stream terraces
Parent material: Sandy and gravelly outwash
General description: Gravel pits are areas that have been mined for gravel or sand. Specific areas are actively being mined or are abandoned pits. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Udipsamments

Extent: 15 to 30 percent of the unit
Geomorphic setting: Stream terraces, outwash plains, and moraines
Parent material: Outwash
General description: Udipsamments are areas of soil that support plant growth. They consist of areas of the pits that have been reclaimed or abandoned. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

L2B—Malardi-Hawick complex, 1 to 6 percent slopes

Component Description

Malardi and similar soils

Extent: 60 to 80 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 1 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Hawick and similar soils

Extent: 10 to 30 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Shoulders
Slope range: 3 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:
Ap—0 to 7 inches; sandy loam
Bw—7 to 11 inches; gravelly loamy coarse sand
C—11 to 80 inches; gravelly coarse sand

Rasset

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 1 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 15 inches; sandy loam
Bt—15 to 28 inches; sandy loam
2BC—28 to 36 inches; loamy sand
2C—36 to 80 inches; sand

Eden Prairie

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 1 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

L2C—Malardi-Hawick complex, 6 to 12 percent slopes

Component Description

Malardi and similar soils

Extent: 60 to 90 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Hawick and similar soils

Extent: 10 to 30 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
Bw—7 to 11 inches; gravelly loamy coarse sand
C—11 to 80 inches; gravelly coarse sand

Tomall

Extent: 5 to 15 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 4 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 33 inches; loam
Bw—33 to 42 inches; sandy loam
2Bw—42 to 47 inches; loamy coarse sand
2C—47 to 80 inches; gravelly loamy coarse sand

Crowfork

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 11 inches; loamy sand
E—11 to 20 inches; loamy fine sand
E&Bt—20 to 76 inches; loamy sand
C—76 to 80 inches; sand

L2D—Malardi-Hawick complex, 12 to 18 percent slopes

Component Description

Malardi and similar soils

Extent: 50 to 90 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap—0 to 9 inches; sandy loam
Bt—9 to 14 inches; sandy loam
2Bt—14 to 21 inches; gravelly loamy coarse sand
2C—21 to 80 inches; gravelly sand

Hawick and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Shoulders
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
Bw—7 to 11 inches; gravelly loamy coarse sand
C—11 to 80 inches; gravelly coarse sand

Tomall

Extent: 5 to 15 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 4 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 33 inches; loam
Bw—33 to 42 inches; sandy loam
2Bw—42 to 47 inches; loamy coarse sand
2C—47 to 80 inches; gravelly loamy coarse sand

Crowfork

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 11 inches; loamy sand
E—11 to 20 inches; loamy fine sand
E&Bt—20 to 76 inches; loamy sand
C—76 to 80 inches; sand

L2E—Malardi-Hawick complex, 18 to 35 percent slopes

Component Description

Malardi and similar soils

Extent: 50 to 90 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 18 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 4.6 percent
Typical profile:
A—0 to 9 inches; sandy loam
Bt—9 to 14 inches; sandy loam
2Bt—14 to 21 inches; gravelly loamy coarse sand
2C—21 to 80 inches; gravelly sand

Hawick and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Shoulders
Slope range: 18 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
A—0 to 7 inches; sandy loam
Bw—7 to 11 inches; gravelly loamy coarse sand
C—11 to 80 inches; gravelly coarse sand

Tomall

Extent: 5 to 25 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 4 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A,AB—0 to 33 inches; loam
Bw—33 to 42 inches; sandy loam
2Bw—42 to 47 inches; loamy coarse sand
2C—47 to 80 inches; gravelly loamy coarse sand

L3A—Rasset sandy loam, 0 to 2 percent slopes

Component Description

Rasset and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 15 inches; sandy loam
Bt—15 to 28 inches; sandy loam
2BC—28 to 36 inches; loamy sand
2C—36 to 80 inches; sand

Malardi

Extent: 0 to 20 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Eden Prairie

Extent: 0 to 5 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam

2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

L3B—Rasset sandy loam, 2 to 6 percent slopes

Component Description

Rasset and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 15 inches; sandy loam
Bt—15 to 28 inches; sandy loam
2BC—28 to 36 inches; loamy sand
2C—36 to 80 inches; sand

Malardi

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Backslopes and summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Eden Prairie

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

L3C—Rasset sandy loam, 6 to 12 percent slopes

Component Description

Rasset and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3 percent

Typical profile:
Ap,A—0 to 15 inches; sandy loam
Bt—15 to 28 inches; sandy loam
2BC—28 to 36 inches; loamy sand
2C—36 to 80 inches; sand

Malardi

Extent: 0 to 30 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Tomall

Extent: 5 to 15 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 4 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 33 inches; loam
Bw—33 to 42 inches; sandy loam
2Bw—42 to 47 inches; loamy coarse sand
2C—47 to 80 inches; gravelly loamy coarse sand

Eden Prairie

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Backslopes and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

L4B—Crowfork loamy sand, 1 to 6 percent slopes

Component Description

Crowfork and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Summits and backslopes
Slope range: 1 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 11 inches; loamy sand
E—11 to 20 inches; loamy fine sand
E&Bt—20 to 76 inches; loamy sand
C—76 to 80 inches; sand

Eden Prairie

Extent: 0 to 20 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Flats and swales
Slope range: 1 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

L4C—Crowfork loamy sand, 6 to 12 percent slopes

Component Description

Crowfork and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 11 inches; loamy sand
E—11 to 20 inches; loamy fine sand
E&Bt—20 to 76 inches; loamy sand
C—76 to 80 inches; sand

Eden Prairie

Extent: 0 to 20 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 1 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

L4D—Crowfork loamy sand, 12 to 18 percent slopes

Component Description

Crowfork and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 11 inches; loamy sand
E—11 to 20 inches; loamy fine sand
E&Bt—20 to 76 inches; loamy sand
C—76 to 80 inches; sand

Eden Prairie

Extent: 0 to 20 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 1 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

L6A—Biscay loam, 0 to 2 percent slopes

Component Description

Biscay and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1,A2—0 to 20 inches; loam
Bg—20 to 28 inches; loam
2BCg—28 to 36 inches; gravelly loam
2Cg—36 to 60 inches; stratified very gravelly coarse sand to loamy sand

Biscay, depressional

Extent: 0 to 20 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 7.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1,A2—0 to 23 inches; loam
Bg—23 to 28 inches; loam
2BCg—28 to 36 inches; gravelly loam
2Cg—36 to 60 inches; stratified very gravelly coarse sand to loamy sand

Mayer

Extent: 0 to 10 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Rims of depressions

Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1,A2—0 to 18 inches; loam
Bg—18 to 33 inches; sandy clay loam
2C—33 to 80 inches; gravelly coarse sand

L7A—Biscay loam, depressional, 0 to 1 percent slopes

Component Description

Biscay, depressional, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 7.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1,A2—0 to 23 inches; loam
Bg—23 to 28 inches; loam
2BCg—28 to 36 inches; gravelly loam
2Cg—36 to 60 inches; stratified very gravelly coarse sand to loamy sand

Biscay

Extent: 0 to 20 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Rims of depressions
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1,A2—0 to 20 inches; loam
Bg—20 to 28 inches; loam
2BCg—28 to 36 inches; gravelly loam
2Cg—36 to 60 inches; stratified very gravelly coarse sand to loamy sand

Mayer

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Rims of depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 6 percent

Typical profile:
Ap,A1,A2—0 to 18 inches; loam
Bg—18 to 33 inches; sandy clay loam
2C—33 to 80 inches; gravelly coarse sand

L8A—Darfur sandy loam, 0 to 2 percent slopes

Component Description

Darfur and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.6 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 16 inches; sandy loam
Bg—16 to 32 inches; sandy clay loam
Cg—32 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

Dassel

Extent: 0 to 20 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 7.7 inches
Content of organic matter in the upper 10 inches: 8 percent
Typical profile:
A1,A2—0 to 14 inches; fine sandy loam
Bg—14 to 31 inches; stratified loamy fine sand to fine sandy loam
Cg—31 to 80 inches; stratified coarse sand to loamy sand

L9A—Minnetonka silty clay loam, 0 to 2 percent slopes

Component Description

Minnetonka and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Moraines and lake plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 13 inches; silty clay loam
Btg—13 to 35 inches; silty clay
Cg—35 to 60 inches; silty clay loam

Depressional soil

Extent: 0 to 20 percent of the unit
Geomorphic setting: Lake plains and moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 16 inches; silty clay loam
Btg—16 to 42 inches; silty clay
Cg—42 to 60 inches; silty clay loam

L10B—Kasota silty clay loam, 1 to 6 percent slopes

Component Description

Kasota and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 1 to 6 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Glaciolacustrine sediments over outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.9 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap—0 to 10 inches; silty clay loam
Bt—10 to 28 inches; silty clay
2BC—28 to 32 inches; sand
2C—32 to 60 inches; coarse sand

Eden Prairie

Extent: 0 to 15 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Shoulders
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

Wet soil in swales

Extent: 0 to 15 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Glaciolacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 13 inches; silty clay loam
Btg—13 to 35 inches; silty clay
Cg—35 to 60 inches; silty clay loam
2Cg—60 to 80 inches; stratified very gravelly coarse sand to loamy sand

L11B—Grays very fine sandy loam, 2 to 8 percent slopes

Component Description

Grays and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 2 to 8 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, March, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 7 inches; very fine sandy loam
Bt—7 to 25 inches; silty clay loam
C—25 to 60 inches; stratified very fine sandy loam to silt loam

Kasota

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on outwash plains
Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Glaciolacustrine sediments over outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.9 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap—0 to 10 inches; silty clay loam
Bt—10 to 28 inches; silty clay
2BC—28 to 32 inches; sand
2C—32 to 60 inches; coarse sand

Crowfork

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on outwash plains
Position on the landform: Summits and shoulders
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 11 inches; loamy sand
E—11 to 20 inches; loamy fine sand
E&Bt—20 to 76 inches; loamy sand
C—76 to 80 inches; sand

L12A—Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes, frequently flooded

Component Description

Muskego, frequently flooded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over coprogenous earth
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October)
Ponding is deepest (depth, months): 2 feet (May, June)

Available water capacity to a depth of 60 inches: 19.4 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oa1—0 to 9 inches; muck
Oa2—9 to 36 inches; muck
Lco—36 to 60 inches; coprogenous earth

Blue Earth, frequently flooded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 1 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Coprogenous earth
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October)
Ponding is deepest (depth, months): 2 feet (May, June)
Available water capacity to a depth of 60 inches: 12.6 inches
Content of organic matter in the upper 10 inches: 17.5 percent
Typical profile:
A—0 to 50 inches; silt loam
Cg—50 to 60 inches; silt loam

Houghton, frequently flooded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October)
Ponding is deepest (depth, months): 2 feet (May, June)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 84.5 percent
Typical profile:
Oa—0 to 80 inches; muck

Oshawa, frequently flooded

Extent: 0 to 15 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Oxbows
Slope range: 0 to 1 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October)
Ponding is deepest (depth, months): 2 feet (May, June)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7 percent
Typical profile:
A—0 to 12 inches; silt loam
Cg—12 to 60 inches; silty clay loam

L13A—Klossner muck, depressional, 0 to 1 percent slopes

Component Description

Klossner, drained, and similar soils

Extent: 65 to 85 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 17.7 inches
Content of organic matter in the upper 10 inches: 50 percent
Typical profile:
Op,Oa—0 to 26 inches; muck
2A1—26 to 36 inches; mucky silty clay loam
2A2—36 to 48 inches; silty clay loam
2Cg—48 to 80 inches; loam

Mineral soil, drained

Extent: 5 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; clay loam
Cg—45 to 80 inches; loam

Houghton, drained

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Op—0 to 10 inches; muck
Oa—10 to 80 inches; muck

L14A—Houghton muck, depressional, 0 to 1 percent slopes

Component Description

Houghton, drained, and similar soils

Extent: 65 to 85 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Op—0 to 10 inches; muck
Oa—10 to 80 inches; muck

Klossner, drained

Extent: 5 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions

Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 17.7 inches
Content of organic matter in the upper 10 inches: 50 percent
Typical profile:
Op,Oa—0 to 26 inches; muck
2A1—26 to 36 inches; mucky silty clay loam
2A2—36 to 48 inches; silty clay loam
2Cg—48 to 80 inches; loam

Mineral soil, drained

Extent: 5 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; clay loam
Cg—45 to 80 inches; loam

L15A—Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes

Component Description

Klossner, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over till
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 17.4 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
Oa—0 to 26 inches; muck
2A1—26 to 33 inches; silt loam
2A2—33 to 40 inches; loam
2Cg—40 to 80 inches; loam

Okoboji, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Mucky silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium or lacustrine sediments over till
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 11.9 inches
Content of organic matter in the upper 10 inches: 14 percent

Typical profile:
A1—0 to 10 inches; mucky silty clay loam
A2—10 to 52 inches; silty clay loam
Bg—52 to 60 inches; silty clay loam

Glencoe, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 7 percent
Typical profile:
A—0 to 42 inches; silty clay loam
Bg—42 to 50 inches; clay loam
Cg—50 to 60 inches; loam

Houghton, ponded

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 84.5 percent
Typical profile:
Oa—0 to 80 inches; muck

L16A—Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes

Component Description

Muskego, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over coprogenous earth
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 19.4 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oa1—0 to 9 inches; muck
Oa2—9 to 36 inches; muck
Lco—36 to 60 inches; coprogenous earth

Blue Earth, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Coprogenous earth
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 12.6 inches
Content of organic matter in the upper 10 inches: 17.5 percent

Typical profile:
A—0 to 50 inches; silt loam
Cg—50 to 60 inches; silt loam

Houghton, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 84.5 percent
Typical profile:
Oa—0 to 80 inches; muck

Klossner, ponded

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over till
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 17.4 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
Oa—0 to 26 inches; muck
2A1—26 to 33 inches; silt loam
2A2—33 to 40 inches; loam
2Cg—40 to 80 inches; loam

L17B—Angus-Malardi complex, 2 to 6 percent slopes

Component Description

Angus and similar soils

Extent: 40 to 75 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam
BC—35 to 40 inches; clay loam
C—40 to 80 inches; loam

Malardi and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam

Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Moon

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits
Slope range: 2 to 5 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 46 inches; sandy clay loam
2C—46 to 60 inches; loam

Cordova

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB—0 to 13 inches; loam
Btg—13 to 33 inches; clay loam
Cg—33 to 80 inches; loam

L18A—Shields silty clay loam, 0 to 3 percent slopes

Component Description

Shields and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1 foot (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 8.7 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap—0 to 8 inches; silty clay loam
BE,Btg—8 to 41 inches; silty clay
2Bk—41 to 80 inches; silty clay loam

Lerdal

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.6 feet (November)
Wet soil moisture status is lowest (depth, months): 4.9 feet (February, August)
Ponding: None

Available water capacity to a depth of 60 inches: 10.1 inches
Content of organic matter in the upper 10 inches: 5.1 percent
Typical profile:
Ap—0 to 9 inches; silty clay loam
Bt,Btg—9 to 42 inches; silty clay
Bw,Bk—42 to 60 inches; loam

Mazaska

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A—0 to 15 inches; silty clay loam
Btg—15 to 42 inches; clay
Bkg—42 to 80 inches; loam

L19B—Moon loamy fine sand, 2 to 5 percent slopes

Component Description

Moon and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 2 to 5 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 46 inches; sandy clay loam
2C—46 to 60 inches; loam

Finchford

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 3 to 5 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.5 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 30 inches; sand
C—30 to 60 inches; sand

L20B—Fedji loamy fine sand, silty substratum, 2 to 8 percent slopes

Component Description

Fedji, silty substratum, and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 2 to 8 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash over glaciolacustrine sediments

Flooding: None
Wet soil moisture status is highest (depth, months): 3.3 feet (May)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 10 inches; loamy fine sand
Bw—10 to 30 inches; loamy fine sand
2Bw—30 to 39 inches; silty clay loam
2Bk—39 to 60 inches; silt loam

Finchford

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.5 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap,A—0 to 18 inches; loamy sand
Bw—18 to 30 inches; sand
C—30 to 60 inches; sand

L21A—Canisteo loam, 0 to 2 percent slopes

Component Description

Canisteo and similar soils

Extent: 75 to 90 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and rims of depressions
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.3 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A—0 to 17 inches; loam
Bkg—17 to 36 inches; clay loam
Cg—36 to 80 inches; loam

Cordova

Extent: 5 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB—0 to 13 inches; loam
Btg—13 to 33 inches; clay loam
Cg—33 to 80 inches; loam

Glencoe

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till

Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; loam
Cg—45 to 80 inches; loam

L22C2—Lester loam, morainic, 6 to 12 percent slopes, eroded

Component Description

Lester, eroded, and similar soils

Extent: 60 to 80 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Angus

Extent: 10 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam
BC—35 to 40 inches; clay loam
C—40 to 80 inches; loam

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

Hamel

Extent: 0 to 5 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 24 inches; loam
Btg—24 to 46 inches; clay loam
Cg—46 to 80 inches; loam

L22D2—Lester loam, morainic, 12 to 18 percent slopes, eroded

Component Description

Lester, eroded, and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and backslopes
Slope range: 12 to 18 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

Hamel

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 24 inches; loam
Btg—24 to 46 inches; clay loam
Cg—46 to 80 inches; loam

Ridgeton

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 8 to 14 percent
Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 23 inches; loam
A2,AB—23 to 38 inches; loam
Bw—38 to 50 inches; loam
C—50 to 80 inches; loam

L22E—Lester loam, morainic, 18 to 25 percent slopes

Component Description

Lester, morainic, and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and shoulders
Slope range: 18 to 25 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 5 inches; loam
BE,Bt—5 to 34 inches; clay loam
Bk—34 to 60 inches; loam
C—60 to 80 inches; loam

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
A1,A2—0 to 24 inches; loam
AB—24 to 37 inches; loam
Bw—37 to 57 inches; loam
C—57 to 80 inches; loam

Hamel

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1,A2—0 to 22 inches; loam
Btg—22 to 41 inches; clay loam
Cg—41 to 80 inches; loam

Ridgeton

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 10 to 20 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,A3—0 to 32 inches; loam
Bw—32 to 40 inches; loam
C1,C2—40 to 80 inches; loam

L22F—Lester loam, morainic, 25 to 35 percent slopes

Component Description

Lester, morainic, and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Backslopes and shoulders
Slope range: 25 to 35 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 5 inches; loam
BE,Bt—5 to 34 inches; clay loam
Bk—34 to 60 inches; loam
C—60 to 80 inches; loam

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
A1,A2—0 to 24 inches; loam
AB—24 to 37 inches; loam
Bw—37 to 57 inches; loam
C—57 to 80 inches; loam

Ridgeton

Extent: 0 to 20 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Backslopes and footslopes
Slope range: 18 to 25 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,A3—0 to 32 inches; loam
Bw—32 to 40 inches; loam
C1,C2—40 to 80 inches; loam

Hamel

Extent: 0 to 10 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Toeslopes
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1,A2—0 to 22 inches; loam
Btg—22 to 41 inches; clay loam
Cg—41 to 80 inches; loam

L23A—Cordova loam, 0 to 2 percent slopes

Component Description

Cordova and similar soils

Extent: 80 to 95 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB—0 to 13 inches; loam
Btg—13 to 33 inches; clay loam
Cg—33 to 80 inches; loam

Glencoe

Extent: 5 to 15 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; loam
Cg—45 to 80 inches; loam

Nessel

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 6 inches; loam
Bt—6 to 38 inches; clay loam
C—38 to 80 inches; loam

L24A—Glencoe loam, depressional, 0 to 1 percent slopes

Component Description

Glencoe, depressional, and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic setting: Moraines

Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; loam
Cg—45 to 80 inches; loam

Cordova

Extent: 5 to 15 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Rims of depressions
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB—0 to 13 inches; loam
Btg—13 to 33 inches; clay loam
Cg—33 to 80 inches; loam

L25A—Le Sueur loam, 1 to 3 percent slopes

Component Description

Le Sueur and similar soils

Extent: 75 to 90 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,AB—0 to 17 inches; loam
Bt—17 to 36 inches; clay loam
Bk—36 to 46 inches; loam
C—46 to 80 inches; loam

Cordova

Extent: 5 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB—0 to 13 inches; loam
Btg—13 to 33 inches; clay loam
Cg—33 to 80 inches; loam

Angus

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam
BC—35 to 40 inches; clay loam
C—40 to 80 inches; loam

L26A—Shorewood silty clay loam, 0 to 3 percent slopes

Component Description

Shorewood and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic setting: Lake plains and moraines
Position on the landform: Slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Lacustrine sediments over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 17 inches; silty clay loam
Bt—17 to 39 inches; silty clay
2BCg,2Cg—39 to 60 inches; loam

Minnetonka

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines and lake plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 13 inches; silty clay loam
Btg—13 to 35 inches; silty clay
Cg—35 to 60 inches; silty clay loam

Good Thunder

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines and lake plains
Position on the landform: Slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Lacustrine sediments
Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): 5.6 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A—0 to 15 inches; silty clay loam
Bt—15 to 32 inches; silty clay
C—32 to 80 inches; silt loam

L26B—Shorewood silty clay loam, 3 to 6 percent slopes

Component Description

Shorewood and similar soils

Extent: 85 to 95 percent of the unit
Geomorphic setting: Hills on moraines; hills on lake plains
Position on the landform: Summits and backslopes
Slope range: 3 to 6 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Lacustrine sediments over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 17 inches; silty clay loam
Bt—17 to 39 inches; silty clay
2BCg,2Cg—39 to 60 inches; loam

Good Thunder

Extent: 0 to 10 percent of the unit
Geomorphic setting: Lake plains and moraines
Position on the landform: Flats and slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)
Wet soil moisture status is lowest (depth, months): 5.6 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A—0 to 15 inches; silty clay loam
Bt—15 to 32 inches; silty clay
C—32 to 80 inches; silt loam

Minnetonka

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines and lake plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 13 inches; silty clay loam
Btg—13 to 35 inches; silty clay
Cg—35 to 60 inches; silty clay loam

L26C2—Shorewood silty clay loam, 6 to 12 percent slopes, eroded

Component Description

Shorewood, eroded, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Hills on moraines; hills on lake plains
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Lacustrine sediments over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, March, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap,A,AB—0 to 17 inches; silty clay loam
Bt—17 to 39 inches; silty clay
2BCg,2Cg—39 to 60 inches; loam

Minnetonka

Extent: 0 to 10 percent of the unit
Geomorphic setting: Lake plains and moraines
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Lacustrine sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 13 inches; silty clay loam
Btg—13 to 35 inches; silty clay
Cg—35 to 60 inches; silty clay loam

L27A—Suckercreek loam, 0 to 2 percent slopes, frequently flooded

Component Description

Suckercreek, frequently flooded, and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.8 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A—0 to 22 inches; loam
Cg—22 to 80 inches; loamy fine sand

Suckercreek, occasionally flooded

Extent: 0 to 20 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 2.3 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 9.2 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A—0 to 12 inches; fine sandy loam
Cg—12 to 80 inches; fine sandy loam

Hanlon, occasionally flooded

Extent: 0 to 5 percent of the unit
Geomorphic setting: Flood plains

Position on the landform: Flats and slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): 3.9 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
A1,A2—0 to 40 inches; fine sandy loam
A3—40 to 63 inches; fine sandy loam
Bw—63 to 70 inches; sandy loam
Cg—70 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

L28A—Suckercreek fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Component Description

Suckercreek, occasionally flooded, and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 2.3 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 9.2 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A—0 to 12 inches; fine sandy loam
Cg—12 to 80 inches; fine sandy loam

Suckercreek, frequently flooded

Extent: 0 to 20 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.8 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A—0 to 22 inches; loam
Cg—22 to 80 inches; loamy fine sand

Hanlon, occasionally flooded

Extent: 0 to 20 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats and slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): 3.9 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
A1,A2—0 to 40 inches; fine sandy loam
A3—40 to 63 inches; fine sandy loam
Bw—63 to 70 inches; sandy loam
Cg—70 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

L29A—Hanlon fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Component Description

Hanlon, occasionally flooded, and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats and slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): 3.9 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
A1,A2—0 to 40 inches; fine sandy loam
A3—40 to 63 inches; fine sandy loam
Bw—63 to 70 inches; sandy loam
Cg—70 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

Suckercreek, occasionally flooded

Extent: 0 to 20 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 2.3 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 9.2 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A—0 to 12 inches; fine sandy loam
Cg—12 to 80 inches; fine sandy loam

Suckercreek, frequently flooded

Extent: 0 to 20 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.8 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A—0 to 22 inches; loam
Cg—22 to 80 inches; loamy fine sand

L30A—Medo soils, depressional, 0 to 1 percent slopes

Component Description

Medo, surface drained, and similar soils

Extent: 50 to 100 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Depressions

Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 14.3 inches
Content of organic matter in the upper 10 inches: 70 percent
Typical profile:
Oa—0 to 27 inches; muck
2A—27 to 35 inches; mucky loam
2Bg—35 to 39 inches; sandy clay loam
2Cg—39 to 80 inches; gravelly loamy coarse sand

Medo, drained, and similar soils

Extent: 0 to 40 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 14.3 inches
Content of organic matter in the upper 10 inches: 70 percent
Typical profile:
Op,Oa—0 to 27 inches; muck
2A—27 to 35 inches; mucky loam
2Bg—35 to 39 inches; sandy clay loam
2Cg—39 to 80 inches; gravelly loamy coarse sand

Mineral soil, drained

Extent: 5 to 25 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 6.8 inches
Content of organic matter in the upper 10 inches: 8 percent
Typical profile:
Ap,A3—0 to 23 inches; fine sandy loam
Bg—23 to 31 inches; stratified loamy fine sand to fine sandy loam
2Cg—31 to 60 inches; stratified coarse sand to loamy sand

L31A—Medo, Dassel, and Biscay soils, ponded, 0 to 1 percent slopes

Component Description

Medo, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over outwash
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 12.2 inches
Content of organic matter in the upper 10 inches: 70 percent
Typical profile:
Oa—0 to 20 inches; muck
2A—20 to 34 inches; loam
2AC,2Cg—34 to 60 inches; sand

Dassel, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 6.8 inches
Content of organic matter in the upper 10 inches: 8 percent
Typical profile:
A1,A3—0 to 23 inches; fine sandy loam
Bg—23 to 31 inches; stratified loamy fine sand to fine sandy loam
2Cg—31 to 60 inches; stratified coarse sand to loamy sand

Biscay, ponded, and similar soils

Extent: 0 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 6.9 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1,AB—0 to 24 inches; loam
Bg—24 to 29 inches; loam
2BCg,2Cg—29 to 60 inches; stratified very gravelly coarse sand to loamy sand

Houghton, ponded

Extent: 0 to 10 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 84.5 percent
Typical profile:
Oa—0 to 80 inches; muck

Muskego, ponded

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over coprogenous earth
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 0.5 foot (August)
Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 19.4 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oa1—0 to 9 inches; muck
Oa2—9 to 36 inches; muck
Lco—36 to 60 inches; coprogenous earth

L32D—Hawick loamy sand, 12 to 18 percent slopes

Component Description

Hawick and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Backslopes, shoulders, and summits
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.3 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
A—0 to 11 inches; loamy sand
Bw—11 to 15 inches; loamy sand
C—15 to 80 inches; stratified gravelly coarse sand to sand

Crowfork

Extent: 0 to 20 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Backslopes, summits, and shoulders
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 11 inches; loamy sand
E—11 to 19 inches; loamy fine sand
E&Bt—19 to 54 inches; loamy sand
C—54 to 60 inches; sand

Tomall

Extent: 5 to 20 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Footslopes and toeslopes
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 4 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A,AB—0 to 33 inches; loam
Bw—33 to 42 inches; sandy loam
2Bw—42 to 47 inches; loamy coarse sand
2C—47 to 80 inches; gravelly loamy coarse sand

L32F—Hawick loamy sand, 18 to 40 percent slopes

Component Description

Hawick and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Summits, shoulders, and backslopes
Slope range: 18 to 40 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash

Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.3 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
A—0 to 11 inches; loamy sand
Bw—11 to 15 inches; loamy sand
C—15 to 80 inches; stratified gravelly coarse sand to sand

Crowfork

Extent: 0 to 20 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Shoulders, summits, and backslopes
Slope range: 18 to 40 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 11 inches; loamy sand
E—11 to 19 inches; loamy fine sand
E&Bt—19 to 54 inches; loamy sand
C—54 to 60 inches; sand

Tomall

Extent: 5 to 20 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Footslopes and toeslopes
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 4 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A,AB—0 to 33 inches; loam
Bw—33 to 42 inches; sandy loam
2Bw—42 to 47 inches; loamy coarse sand
2C—47 to 80 inches; gravelly loamy coarse sand

L35A—Lerdal loam, 1 to 3 percent slopes

Component Description

Lerdal and similar soils

Extent: 75 to 85 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.6 feet (November)
Wet soil moisture status is lowest (depth, months): 4.9 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap—0 to 13 inches; loam
Bt,Btg—13 to 47 inches; clay loam
Bk—47 to 60 inches; loam

Mazaska

Extent: 5 to 15 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Glaciofluvial sediments and reworked till over till

Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A—0 to 15 inches; silty clay loam
Btg—15 to 42 inches; clay
Bkg—42 to 80 inches; loam

Cordova

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB—0 to 13 inches; loam
Btg—13 to 33 inches; clay loam
Cg—33 to 80 inches; loam

Le Sueur

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,AB—0 to 17 inches; loam
Bt—17 to 36 inches; clay loam
Bk—36 to 46 inches; loam
C—46 to 80 inches; loam

L36A—Hamel, overwash-Hamel complex, 1 to 4 percent slopes

Component Description

Hamel, overwash, and similar soils

Extent: 40 to 60 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Drainageways and swales
Slope range: 1 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.8 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A—13 to 29 inches; clay loam
Btg—29 to 50 inches; clay loam
Cg—50 to 80 inches; loam

Hamel and similar soils

Extent: 30 to 55 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Drainageways and swales
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained

Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 24 inches; loam
Btg—24 to 46 inches; clay loam
Cg—46 to 80 inches; loam

Terril

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

Glencoe

Extent: 0 to 5 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; loam
Cg—45 to 80 inches; loam

L37B—Angus loam, morainic, 2 to 5 percent slopes

Component Description

Angus, morainic, and similar soils

Extent: 50 to 90 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam
BC—35 to 40 inches; clay loam
C—40 to 80 inches; loam

Angus, eroded

Extent: 5 to 40 percent of the unit
Geomorphic setting: Hills on moraines

Position on the landform: Shoulders
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.8 percent
Typical profile:
Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam
Bk—35 to 58 inches; loam
C—58 to 80 inches; loam

Le Sueur

Extent: 5 to 15 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,AB—0 to 17 inches; loam
Bt—17 to 36 inches; clay loam
Bk—36 to 46 inches; loam
C—46 to 80 inches; loam

Cordova

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB—0 to 13 inches; loam
Btg—13 to 33 inches; clay loam
Cg—33 to 80 inches; loam

L38A—Rushriver very fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Component Description

Rushriver, occasionally flooded, and similar soils

Extent: 70 to 85 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 2.3 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 8 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
A—0 to 46 inches; very fine sandy loam
C—46 to 80 inches; stratified coarse sand to silt loam

Oshawa, frequently flooded

Extent: 10 to 20 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Oxbows and swales
Slope range: 0 to 1 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October)
Ponding is deepest (depth, months): 2 feet (May, June)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7 percent
Typical profile:
A—0 to 12 inches; silt loam
Cg—12 to 60 inches; silty clay loam

Minneiska, occasionally flooded

Extent: 0 to 10 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
C—10 to 60 inches; stratified sand to silt loam

Algansee, occasionally flooded

Extent: 0 to 10 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 5 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
A—0 to 6 inches; loamy sand
C—6 to 60 inches; stratified sand to loam

L39A—Minneiska fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Component Description

Minneiska, occasionally flooded, and similar soils

Extent: 65 to 80 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (February)
Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
C—10 to 60 inches; stratified sand to silt loam

Rushriver, occasionally flooded

Extent: 5 to 20 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 2.3 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 8 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
A—0 to 46 inches; very fine sandy loam
C—46 to 80 inches; stratified coarse sand to silt loam

Oshawa, frequently flooded

Extent: 5 to 15 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Oxbows and swales
Slope range: 0 to 1 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October)
Ponding is deepest (depth, months): 2 feet (May, June)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7 percent
Typical profile:
A—0 to 12 inches; silt loam
Cg—12 to 60 inches; silty clay loam

Algansee, occasionally flooded

Extent: 0 to 10 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 5 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
A—0 to 6 inches; loamy sand
C—6 to 60 inches; stratified sand to loam

L40B—Angus-Kilkenny complex, 2 to 6 percent slopes

Component Description

Angus and similar soils

Extent: 35 to 55 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam
BC—35 to 40 inches; clay loam
C—40 to 80 inches; loam

Kilkenny and similar soils

Extent: 30 to 50 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 2 to 6 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.7 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 11 inches; clay loam
Bt—11 to 35 inches; clay loam
2Bk,2C—35 to 80 inches; loam

Lerdal

Extent: 5 to 15 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.6 feet (November)
Wet soil moisture status is lowest (depth, months): 4.9 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 4.6 percent
Typical profile:
Ap—0 to 8 inches; clay loam
E—8 to 12 inches; clay loam
Bt,Btg—12 to 41 inches; silty clay loam
Bk—41 to 80 inches; loam

Mazaska

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Silty clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,A—0 to 15 inches; silty clay loam
Btg—15 to 42 inches; clay
Bkg—42 to 80 inches; loam

L41C2—Lester-Kilkenny complex, 6 to 12 percent slopes, eroded

Component Description

Lester, eroded, and similar soils

Extent: 40 to 50 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Kilkenny, eroded, and similar soils

Extent: 35 to 45 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 10.3 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; clay loam
Bt—9 to 53 inches; clay loam
2BC,2C—53 to 80 inches; loam

Terril

Extent: 5 to 15 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

Derrynane

Extent: 2 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Drainageways and swales
Slope range: 1 to 3 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium or glaciofluvial sediments over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 19 inches; clay loam
A2—19 to 39 inches; silty clay
Bg,2Bg—39 to 65 inches; clay loam
2Cg—65 to 80 inches; loam

L41D2—Lester-Kilkenny complex, 12 to 18 percent slopes, eroded

Component Description

Lester, eroded, and similar soils

Extent: 40 to 50 percent of the unit
Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes
Slope range: 12 to 18 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Kilkenny, eroded, and similar soils

Extent: 25 to 45 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 12 to 18 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 10.3 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; clay loam
Bt—9 to 53 inches; clay loam
2BC,2C—53 to 80 inches; loam

Terril

Extent: 5 to 15 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

Derrynane

Extent: 2 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Drainageways and swales
Slope range: 1 to 3 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium or glaciofluvial sediments over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 19 inches; clay loam
A2—19 to 39 inches; silty clay
Bg,2Bg—39 to 65 inches; clay loam
2Cg—65 to 80 inches; loam

Ridgeton

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 8 to 14 percent

Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 23 inches; loam
A2,AB—23 to 38 inches; loam
Bw—38 to 50 inches; loam
C—50 to 80 inches; loam

L41E—Lester-Kilkenny complex, 18 to 25 percent slopes

Component Description

Lester and similar soils

Extent: 40 to 50 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and shoulders
Slope range: 18 to 25 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 5 inches; loam
BE,Bt—5 to 34 inches; clay loam
Bk—34 to 60 inches; loam
C—60 to 80 inches; loam

Kilkenny and similar soils

Extent: 35 to 45 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 18 to 25 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 2.7 percent
Typical profile:
A—0 to 7 inches; clay loam
Bt—7 to 31 inches; clay loam
2Bk,2C—31 to 80 inches; loam

Terril

Extent: 5 to 15 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
A1,A2—0 to 24 inches; loam
AB—24 to 37 inches; loam
Bw—37 to 57 inches; loam
C—57 to 80 inches; loam

Derrynane

Extent: 2 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Drainageways and swales
Slope range: 1 to 3 percent

Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium or glaciofluvial sediments over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1—0 to 20 inches; clay loam
A2—20 to 40 inches; clay loam
Btg—40 to 54 inches; clay loam
2Cg—54 to 80 inches; loam

Ridgeton

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 10 to 20 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,A3—0 to 32 inches; loam
Bw—32 to 40 inches; loam
C1,C2—40 to 80 inches; loam

L41F—Lester-Kilkenny complex, 25 to 35 percent slopes

Component Description

Lester and similar soils

Extent: 40 to 50 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Backslopes and shoulders
Slope range: 25 to 35 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 5 inches; loam
BE,Bt—5 to 34 inches; clay loam
Bk—34 to 60 inches; loam
C—60 to 80 inches; loam

Kilkenny and similar soils

Extent: 25 to 45 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Shoulders and summits
Slope range: 25 to 35 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments and reworked till over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
A—0 to 7 inches; clay loam
Bt—7 to 31 inches; clay loam
2Bk,2C—31 to 80 inches; loam

Ridgeton

Extent: 0 to 20 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Backslopes and footslopes
Slope range: 18 to 25 percent
Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,A3—0 to 32 inches; loam
Bw—32 to 40 inches; loam
C1,C2—40 to 80 inches; loam

Terril

Extent: 5 to 15 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
A1,A2—0 to 24 inches; loam
AB—24 to 37 inches; loam
Bw—37 to 57 inches; loam
C—57 to 80 inches; loam

Derrynane

Extent: 2 to 10 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Toeslopes
Slope range: 1 to 3 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium or glaciofluvial sediments over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1—0 to 20 inches; clay loam
A2—20 to 40 inches; clay loam
Btg—40 to 54 inches; clay loam
2Cg—54 to 80 inches; loam

L42B—Kingsley-Gotham complex, 2 to 6 percent slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
A—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 2 to 6 percent

Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
A—0 to 9 inches; loamy sand
Bt—9 to 18 inches; loamy sand
Bw,BC—18 to 40 inches; sand
C—40 to 80 inches; sand

Grays

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
A—0 to 7 inches; very fine sandy loam
Bt—7 to 25 inches; silt loam
C—25 to 60 inches; stratified very fine sandy loam to silt loam

L42C—Kingsley-Gotham complex, 6 to 12 percent slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
A—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
A—0 to 9 inches; loamy sand
Bt—9 to 18 inches; loamy sand
Bw,BC—18 to 40 inches; sand
C—40 to 80 inches; sand

Grays

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained

Parent material: Glaciofluvial sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
A—0 to 7 inches; very fine sandy loam
Bt—7 to 25 inches; silt loam
C—25 to 60 inches; stratified very fine sandy loam to silt loam

L42D—Kingsley-Gotham complex, 12 to 18 percent slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
A—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
A—0 to 9 inches; loamy sand
Bt—9 to 18 inches; loamy sand
Bw,BC—18 to 40 inches; sand
C—40 to 80 inches; sand

Grays

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
A—0 to 7 inches; very fine sandy loam
Bt—7 to 25 inches; silt loam
C—25 to 60 inches; stratified very fine sandy loam to silt loam

L42E—Kingsley-Gotham complex, 18 to 25 percent slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit
Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes
Slope range: 18 to 25 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
A—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 18 to 25 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
A—0 to 9 inches; loamy sand
Bt—9 to 18 inches; loamy sand
Bw,BC—18 to 40 inches; sand
C—40 to 80 inches; sand

Grays

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
A—0 to 7 inches; very fine sandy loam
Bt—7 to 25 inches; silt loam
C—25 to 60 inches; stratified very fine sandy loam to silt loam

L42F—Kingsley-Gotham complex, 25 to 35 percent slopes

Component Description

Kingsley and similar soils

Extent: 60 to 85 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Backslopes and shoulders
Slope range: 25 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
A—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Gotham and similar soils

Extent: 20 to 35 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Shoulders and summits
Slope range: 25 to 35 percent
Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
A—0 to 9 inches; loamy sand
Bt—9 to 18 inches; loamy sand
Bw,BC—18 to 40 inches; sand
C—40 to 80 inches; sand

Grays

Extent: 0 to 10 percent of the unit
Geomorphic setting: Escarpments
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Glaciofluvial sediments
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
A—0 to 7 inches; very fine sandy loam
Bt—7 to 25 inches; silt loam
C—25 to 60 inches; stratified very fine sandy loam to silt loam

L43A—Brouillett loam, 0 to 2 percent slopes, occasionally flooded

Component Description

Brouillett, occasionally flooded, and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
Ap—0 to 14 inches; loam
A—14 to 36 inches; loam
Bg—36 to 44 inches; loam
Cg—44 to 60 inches; stratified loamy very fine sand to silt loam

Minneiska, occasionally flooded

Extent: 5 to 15 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Slight rises
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
C—10 to 60 inches; stratified sand to silt loam

Rushriver, occasionally flooded

Extent: 5 to 10 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, September, October, November, December
Flooding is most likely (frequency, months): Occasional (March, April, May, June, July, August)
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 2.3 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 8 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
A—0 to 46 inches; very fine sandy loam
C—46 to 80 inches; stratified coarse sand to silt loam

L44A—Nessel loam, 1 to 3 percent slopes

Component Description

Nessel and similar soils

Extent: 75 to 90 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 6 inches; loam
Bt—6 to 38 inches; clay loam
C—38 to 80 inches; loam

Cordova

Extent: 5 to 15 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB—0 to 13 inches; loam
Btg—13 to 33 inches; clay loam
Cg—33 to 80 inches; loam

Angus

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam

BC—35 to 40 inches; clay loam
C—40 to 80 inches; loam

L45A—Dundas-Cordova complex, 0 to 3 percent slopes

Component Description

Dundas and similar soils

Extent: 50 to 75 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats
Slope range: 1 to 3 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.7 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap—0 to 9 inches; silt loam
E—9 to 15 inches; loam
Btg—15 to 40 inches; clay loam
Cg—40 to 80 inches; loam

Cordova and similar soils

Extent: 15 to 30 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)
Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
Ap,AB—0 to 13 inches; loam
Btg—13 to 33 inches; clay loam
Cg—33 to 80 inches; loam

Nessel

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 6 inches; loam
Bt—6 to 38 inches; clay loam
C—38 to 80 inches; loam

Glencoe

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; loam
Cg—45 to 80 inches; loam

L46A—Tomall loam, 0 to 2 percent slopes

Component Description

Tomall and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 4 feet (April, May)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 33 inches; loam
Bw—33 to 42 inches; sandy loam
2Bw—42 to 47 inches; loamy coarse sand
2C—47 to 80 inches; gravelly loamy coarse sand

Rasset

Extent: 0 to 20 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 15 inches; sandy loam
Bt—15 to 28 inches; sandy loam
2BC—28 to 36 inches; loamy sand
2C—36 to 80 inches; sand

Malardi

Extent: 0 to 20 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 0 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

L47A—Eden Prairie sandy loam, 0 to 2 percent slopes

Component Description

Eden Prairie and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained

Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

Malardi

Extent: 0 to 20 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Rasset

Extent: 0 to 10 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 15 inches; sandy loam
Bt—15 to 28 inches; sandy loam
2BC—28 to 36 inches; loamy sand
2C—36 to 80 inches; sand

L47B—Eden Prairie sandy loam, 2 to 6 percent slopes

Component Description

Eden Prairie and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

Malardi

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Rasset

Extent: 5 to 15 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 1 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 15 inches; sandy loam
Bt—15 to 28 inches; sandy loam
2BC—28 to 36 inches; loamy sand
2C—36 to 80 inches; sand

L47C—Eden Prairie sandy loam, 6 to 12 percent slopes

Component Description

Eden Prairie and similar soils

Extent: 60 to 85 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Backslopes and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

Malardi

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Rasset

Extent: 5 to 15 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Swales
Slope range: 1 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 15 inches; sandy loam
Bt—15 to 28 inches; sandy loam
2BC—28 to 36 inches; loamy sand
2C—36 to 80 inches; sand

Hawick

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Backslopes and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
Bw—7 to 11 inches; gravelly loamy coarse sand
C—11 to 80 inches; gravelly coarse sand

L49A—Klossner soils, depressional, 0 to 1 percent slopes

Component Description

Klossner, surface drained, and similar soils

Extent: 50 to 100 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 17.4 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
Oa—0 to 26 inches; muck
2A1—26 to 33 inches; silt loam
2A2—33 to 40 inches; loam
2Cg—40 to 80 inches; loam

Klossner, drained, and similar soils

Extent: 0 to 40 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 17.7 inches
Content of organic matter in the upper 10 inches: 50 percent
Typical profile:
Op,Oa—0 to 26 inches; muck
2A1—26 to 36 inches; mucky silty clay loam
2A2—36 to 48 inches; silty clay loam
2Cg—48 to 80 inches; loam

Mineral soil, drained

Extent: 5 to 25 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; clay loam
Cg—45 to 80 inches; loam

L50A—Houghton and Muskego soils, depressional, 0 to 1 percent slopes

Component Description

Houghton, surface drained, and similar soils

Extent: 20 to 60 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 84.5 percent
Typical profile:
Oa—0 to 80 inches; muck

Muskego, surface drained, and similar soils

Extent: 20 to 60 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over coprogenous earth
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 19.4 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oa1—0 to 9 inches; muck
Oa2—9 to 36 inches; muck
Lco—36 to 60 inches; coprogenous earth

Klossner, drained

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 17.7 inches

Content of organic matter in the upper 10 inches: 50 percent
Typical profile:
Op,Oa—0 to 26 inches; muck
2A1—26 to 36 inches; mucky silty clay loam
2A2—36 to 48 inches; silty clay loam
2Cg—48 to 80 inches; loam

Mineral soil, drained

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; clay loam
Cg—45 to 80 inches; loam

L52C—Urban land-Lester complex, 2 to 18 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Moraines
Slope range: 2 to 18 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Lester and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and shoulders
Slope range: 6 to 18 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Kingsley

Extent: 0 to 5 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 5 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
A—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

L52E—Urban land-Lester complex, 18 to 35 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Moraines
Slope range: 18 to 35 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Lester and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and backslopes
Slope range: 18 to 35 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 5 inches; loam
BE,Bt—5 to 34 inches; clay loam
Bk—34 to 60 inches; loam
C—60 to 80 inches; loam

Kingsley

Extent: 0 to 5 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 18 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
A—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

L53B—Urban land-Moon complex, 2 to 8 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Moraines
Slope range: 2 to 8 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Moon and similar soils

Extent: 15 to 25 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 2 to 5 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 46 inches; sandy clay loam
2C—46 to 60 inches; loam

Lester

Extent: 0 to 15 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and shoulders
Slope range: 6 to 8 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

L54A—Urban land-Dundas complex, 0 to 3 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Moraines
Slope range: 0 to 3 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Dundas and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats
Slope range: 0 to 3 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August)
Ponding: None
Available water capacity to a depth of 60 inches: 10.7 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap—0 to 9 inches; silt loam
E—9 to 15 inches; loam
Btg—15 to 40 inches; clay loam
Cg—40 to 80 inches; loam

Nessel

Extent: 0 to 15 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 6 inches; loam
Bt—6 to 38 inches; clay loam
C—38 to 80 inches; loam

L55B—Urban land-Malardi complex, 0 to 8 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Slope range: 0 to 8 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Malardi and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 2 to 8 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Rasset

Extent: 0 to 10 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Position on the landform: Swales
Slope range: 1 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 6.1 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A—0 to 15 inches; sandy loam
Bt—15 to 28 inches; sandy loam
2BC—28 to 36 inches; loamy sand
2C—36 to 80 inches; sand

Eden Prairie

Extent: 0 to 5 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Backslopes and summits
Slope range: 0 to 8 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 16 inches; sandy loam
2Bt—16 to 26 inches; loamy sand
2Bw,2C1,2C2—26 to 80 inches; sand

L55C—Urban land-Malardi complex, 8 to 18 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Slope range: 8 to 18 percent
Flooding: None
Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Malardi and similar soils

Extent: 0 to 20 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Backslopes and summits
Slope range: 8 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Hawick

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on stream terraces; hills on outwash plains
Position on the landform: Shoulders
Slope range: 8 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
Bw—7 to 11 inches; gravelly loamy coarse sand
C—11 to 80 inches; gravelly coarse sand

Crowfork

Extent: 0 to 5 percent of the unit
Geomorphic setting: Hills on outwash plains; hills on stream terraces
Position on the landform: Summits and backslopes
Slope range: 8 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 11 inches; loamy sand
E—11 to 20 inches; loamy fine sand
E&Bt—20 to 76 inches; loamy sand
C—76 to 80 inches; sand

L56A—Muskego and Klossner soils, 0 to 1 percent slopes, frequently flooded

Component Description

Muskego, frequently flooded, and similar soils

Extent: 30 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over coprogenous earth
Flooding does not occur (months): January, February, August, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 19.4 inches
Content of organic matter in the upper 10 inches: 75 percent
Typical profile:
Oa1—0 to 9 inches; muck
Oa2—9 to 36 inches; muck
Lco—36 to 60 inches; coprogenous earth

Klossner, frequently flooded, and similar soils

Extent: 30 to 100 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic material over till
Flooding does not occur (months): January, February, August, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.5 feet (February)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 17.4 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
Oa—0 to 26 inches; muck
2A1—26 to 33 inches; silt loam
2A2—33 to 40 inches; loam
2Cg—40 to 80 inches; loam

Suckercreek, frequently flooded

Extent: 0 to 40 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Alluvium
Flooding does not occur (months): January, February, August, September, October, November, December
Flooding is most likely (frequency, months): Frequent (March, April, May, June)
Wet soil moisture status is highest (depth, months): At the surface (April, May, June)
Wet soil moisture status is lowest (depth, months): 1.8 feet (February)
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A—0 to 22 inches; loam
Cg—22 to 80 inches; loamy fine sand

L58B—Koronis-Kingsley complex, 2 to 6 percent slopes

Component Description

Koronis and similar soils

Extent: 50 to 85 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 30 inches; sandy clay loam
Bk—30 to 60 inches; loam

Kingsley and similar soils

Extent: 20 to 35 percent of the unit
Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Forestcity

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 36 inches; loam
2Btg—36 to 60 inches; sandy clay loam
2Cg—60 to 80 inches; sandy loam

Gotham

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bt—9 to 18 inches; loamy sand
Bw,BC—18 to 40 inches; sand
C—40 to 80 inches; sand

L58C2—Koronis-Kingsley complex, 6 to 12 percent slopes, eroded

Component Description

Koronis, eroded, and similar soils

Extent: 50 to 85 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 30 inches; sandy clay loam
Bk—30 to 60 inches; loam

Kingsley, eroded, and similar soils

Extent: 20 to 35 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Forestcity

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 36 inches; loam
2Btg—36 to 60 inches; sandy clay loam
2Cg—60 to 80 inches; sandy loam

Gotham

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bt—9 to 18 inches; loamy sand
Bw,BC—18 to 40 inches; sand
C—40 to 80 inches; sand

L58D2—Koronis-Kingsley complex, 12 to 18 percent slopes, eroded

Component Description

Koronis, eroded, and similar soils

Extent: 50 to 85 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 30 inches; sandy clay loam
Bk—30 to 60 inches; loam

Kingsley, eroded, and similar soils

Extent: 20 to 35 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None

Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Forestcity

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 36 inches; loam
2Btg—36 to 60 inches; sandy clay loam
2Cg—60 to 80 inches; sandy loam

Gotham

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bt—9 to 18 inches; loamy sand
Bw,BC—18 to 40 inches; sand
C—40 to 80 inches; sand

L58E—Koronis-Kingsley complex, 18 to 25 percent slopes

Component Description

Koronis and similar soils

Extent: 50 to 85 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 18 to 25 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 10 inches; sandy loam
Bt—10 to 30 inches; sandy clay loam
Bk—30 to 60 inches; loam

Kingsley and similar soils

Extent: 20 to 35 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 18 to 25 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
A—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Forestcity

Extent: 0 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 36 inches; loam
2Btg—36 to 60 inches; sandy clay loam
2Cg—60 to 80 inches; sandy loam

Gotham

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 18 to 25 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Glaciofluvial sediments
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
A—0 to 9 inches; loamy sand
Bt—9 to 18 inches; loamy sand
Bw,BC—18 to 40 inches; sand
C—40 to 80 inches; sand

L59A—Forestcity-Lundlake, depressional, complex, 0 to 3 percent slopes

Component Description

Forestcity and similar soils

Extent: 60 to 90 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 0 to 3 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 43 inches; loam
2Btg—43 to 60 inches; sandy clay loam
2BCg—60 to 80 inches; sandy loam

Lundlake, depressional, and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February,

May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 20 inches; loam
A2,A3,AB—20 to 46 inches; loam
Bg—46 to 54 inches; sandy loam
Cg—54 to 60 inches; sandy loam

Marcellon

Extent: 0 to 15 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Flats and slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.2 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 13 inches; loam
Bt—13 to 32 inches; loam
Bk—32 to 60 inches; sandy loam

L60B—Angus-Moon complex, 2 to 5 percent slopes

Component Description

Angus and similar soils

Extent: 60 to 80 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam
BC—35 to 40 inches; clay loam
C—40 to 80 inches; loam

Moon and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 2 to 5 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 46 inches; sandy clay loam
2C—46 to 60 inches; loam

Hamel

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Drainageways and swales
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 24 inches; loam
Btg—24 to 46 inches; clay loam
Cg—46 to 80 inches; loam

L61C2—Lester-Metea complex, 6 to 12 percent slopes, eroded

Component Description

Lester, eroded, and similar soils

Extent: 50 to 80 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Metea, eroded, and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash over till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 46 inches; sandy clay loam
2C—46 to 60 inches; loam

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

Hamel

Extent: 0 to 5 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 24 inches; loam
Btg—24 to 46 inches; clay loam
Cg—46 to 80 inches; loam

L61D2—Lester-Metea complex, 12 to 18 percent slopes, eroded

Component Description

Lester, eroded, and similar soils

Extent: 50 to 80 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and shoulders
Slope range: 12 to 18 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Metea, eroded, and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 12 to 18 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash over till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 46 inches; sandy clay loam
2C—46 to 60 inches; loam

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

Ridgeton

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 8 to 14 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches

Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 23 inches; loam
A2,AB—23 to 38 inches; loam
Bw—38 to 50 inches; loam
C—50 to 80 inches; loam

Hamel

Extent: 0 to 5 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 24 inches; loam
Btg—24 to 46 inches; clay loam
Cg—46 to 80 inches; loam

L61E—Lester-Metea complex, 18 to 25 percent slopes

Component Description

Lester and similar soils

Extent: 50 to 80 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and backslopes
Slope range: 18 to 25 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 5 inches; loam
BE,Bt—5 to 34 inches; clay loam
Bk—34 to 60 inches; loam
C—60 to 80 inches; loam

Metea and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 18 to 25 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash over till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 3.2 percent
Typical profile:
A—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 46 inches; sandy clay loam
2C—46 to 60 inches; loam

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4 percent

Typical profile:
A1,A2—0 to 24 inches; loam
AB—24 to 37 inches; loam
Bw—37 to 57 inches; loam
C—57 to 80 inches; loam

Hamel

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1,A2—0 to 22 inches; loam
Btg—22 to 41 inches; clay loam
Cg—41 to 80 inches; loam

Ridgeton

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 10 to 20 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,A3—0 to 32 inches; loam
Bw—32 to 40 inches; loam
C1,C2—40 to 80 inches; loam

L62B—Koronis-Kingsley-Malardi complex, 2 to 6 percent slopes

Component Description

Koronis and similar soils

Extent: 30 to 70 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 30 inches; sandy clay loam
Bk—30 to 60 inches; loam

Kingsley and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Malardi and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 2.3 percent
Typical profile:
Ap—0 to 9 inches; sandy loam
Bt—9 to 14 inches; sandy loam
2Bt—14 to 21 inches; gravelly loamy coarse sand
2C—21 to 80 inches; gravelly sand

Forestcity

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 36 inches; loam
2Btg—36 to 60 inches; sandy clay loam
2Cg—60 to 80 inches; sandy loam

L62C2—Koronis-Kingsley-Malardi complex, 6 to 12 percent slopes, eroded

Component Description

Koronis, eroded, and similar soils

Extent: 30 to 70 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 30 inches; sandy clay loam
Bk—30 to 60 inches; loam

Kingsley, eroded, and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam

Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Malardi, eroded, and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; sandy loam
Bt—9 to 14 inches; sandy loam
2Bt—14 to 21 inches; gravelly loamy coarse sand
2C—21 to 80 inches; gravelly sand

Forestcity

Extent: 5 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 36 inches; loam
2Btg—36 to 60 inches; sandy clay loam
2Cg—60 to 80 inches; sandy loam

L62D2—Koronis-Kingsley-Malardi complex, 12 to 18 percent slopes, eroded

Component Description

Koronis, eroded, and similar soils

Extent: 30 to 70 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 30 inches; sandy clay loam
Bk—30 to 60 inches; loam

Kingsley, eroded, and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and backslopes
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Malardi, eroded, and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; sandy loam
Bt—9 to 14 inches; sandy loam
2Bt—14 to 21 inches; gravelly loamy coarse sand
2C—21 to 80 inches; gravelly sand

Forestcity

Extent: 5 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 36 inches; loam
2Btg—36 to 60 inches; sandy clay loam
2Cg—60 to 80 inches; sandy loam

L62E—Koronis-Kingsley-Malardi complex, 18 to 35 percent slopes

Component Description

Koronis and similar soils

Extent: 30 to 70 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 18 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 10 inches; sandy loam
Bt—10 to 30 inches; sandy clay loam
Bk—30 to 60 inches; loam

Kingsley and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and summits
Slope range: 18 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
A—0 to 7 inches; sandy loam
E—7 to 14 inches; sandy loam
Bt—14 to 34 inches; sandy loam
C—34 to 60 inches; sandy loam

Malardi and similar soils

Extent: 10 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 18 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 4.6 percent
Typical profile:
A—0 to 9 inches; sandy loam
Bt—9 to 14 inches; sandy loam
2Bt—14 to 21 inches; gravelly loamy coarse sand
2C—21 to 80 inches; gravelly sand

Forestcity

Extent: 5 to 20 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 36 inches; loam
2Btg—36 to 60 inches; sandy clay loam
2Cg—60 to 80 inches; sandy loam

L64A—Tadkee-Tadkee, depressional, complex, 0 to 2 percent slopes

Component Description

Tadkee and similar soils

Extent: 20 to 70 percent of the unit
Geomorphic setting: Beaches on moraines
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Beach sand over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.6 inches
Content of organic matter in the upper 10 inches: 4.3 percent
Typical profile:
A—0 to 6 inches; loamy fine sand
Bg—6 to 34 inches; sand
2Cg—34 to 80 inches; loam

Tadkee, depressional, and similar soils

Extent: 20 to 70 percent of the unit
Geomorphic setting: Beaches on moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Mucky loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Beach sand over till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April, May, June)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 9.8 inches

Content of organic matter in the upper 10 inches: 12.1 percent
Typical profile:
A—0 to 6 inches; mucky loamy fine sand
Bg—6 to 27 inches; sand
2Cg—27 to 80 inches; loam

Better drained soil

Extent: 0 to 20 percent of the unit
Geomorphic setting: Beaches on moraines
Position on the landform: Slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 2.1 percent
Typical profile:
A—0 to 6 inches; loamy sand
Bw—6 to 25 inches; loamy sand
2Cg—25 to 80 inches; loam

Granby

Extent: 0 to 6 percent of the unit
Geomorphic setting: Beaches on moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April, May, June)
Wet soil moisture status is lowest (depth, months): 1.8 feet (August)
Ponding does not occur (months): January, February, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (March, April, May)
Available water capacity to a depth of 60 inches: 4.9 inches
Content of organic matter in the upper 10 inches: 7 percent
Typical profile:
A—0 to 12 inches; loamy fine sand
AC—12 to 24 inches; loamy fine sand
C—24 to 60 inches; loamy fine sand

Less sandy soil

Extent: 0 to 5 percent of the unit
Geomorphic setting: Beaches on moraines
Position on the landform: Flats
Slope range: 0 to 2 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 2.9 percent
Typical profile:
A—0 to 4 inches; loamy fine sand
Bg—4 to 20 inches; loam
Cg—20 to 80 inches; loam

L70C2—Lester-Malardi complex, 6 to 12 percent slopes, eroded

Component Description

Lester, eroded, and similar soils

Extent: 50 to 80 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Malardi, eroded, and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
Bt—10 to 15 inches; sandy loam
2Bt—15 to 29 inches; loamy coarse sand
2C—29 to 80 inches; gravelly sand

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

Hamel

Extent: 0 to 5 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 24 inches; loam
Btg—24 to 46 inches; clay loam
Cg—46 to 80 inches; loam

L70D2—Lester-Malardi complex, 12 to 18 percent slopes, eroded

Component Description

Lester, eroded, and similar soils

Extent: 50 to 80 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and shoulders
Slope range: 12 to 18 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Malardi, eroded, and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Summits and shoulders
Slope range: 12 to 18 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap—0 to 9 inches; sandy loam
Bt—9 to 14 inches; sandy loam
2Bt—14 to 21 inches; gravelly loamy coarse sand
2C—21 to 80 inches; gravelly sand

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

Ridgeton

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 8 to 14 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 23 inches; loam
A2,AB—23 to 38 inches; loam
Bw—38 to 50 inches; loam
C—50 to 80 inches; loam

Hamel

Extent: 0 to 5 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 24 inches; loam
Btg—24 to 46 inches; clay loam
Cg—46 to 80 inches; loam

L70E—Lester-Malardi complex, 18 to 35 percent slopes

Component Description

Lester and similar soils

Extent: 50 to 80 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and backslopes
Slope range: 18 to 35 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 5 inches; loam
BE,Bt—5 to 34 inches; clay loam
Bk—34 to 60 inches; loam
C—60 to 80 inches; loam

Malardi and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and summits
Slope range: 18 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 4.6 percent
Typical profile:
A—0 to 9 inches; sandy loam
Bt—9 to 14 inches; sandy loam
2Bt—14 to 21 inches; gravelly loamy coarse sand
2C—21 to 80 inches; gravelly sand

Terril

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
A1,A2—0 to 24 inches; loam
AB—24 to 37 inches; loam
Bw—37 to 57 inches; loam
C—57 to 80 inches; loam

Hamel

Extent: 0 to 10 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Swales and drainageways
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1,A2—0 to 22 inches; loam
Btg—22 to 41 inches; clay loam
Cg—41 to 80 inches; loam

Ridgeton

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 10 to 20 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,A3—0 to 32 inches; loam
Bw—32 to 40 inches; loam
C1,C2—40 to 80 inches; loam

L71C—Metea loamy fine sand, 6 to 12 percent slopes

Component Description

Metea and similar soils

Extent: 70 to 90 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders, summits, and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Outwash over till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand
2Bt—24 to 46 inches; sandy clay loam
2C—46 to 60 inches; loam

Lester

Extent: 5 to 20 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; loam
Bt—7 to 38 inches; clay loam
Bk—38 to 60 inches; loam
C—60 to 80 inches; loam

Moon

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes and backslopes
Slope range: 2 to 5 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Outwash over till
Flooding: None
Wet soil moisture status is highest (depth, months): 2.5 feet (April)
Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 24 inches; loamy fine sand

2Bt—24 to 46 inches; sandy clay loam
2C—46 to 60 inches; loam

L72A—Lundlake loam, depressional, 0 to 1 percent slopes

Component Description

Lundlake, depressional, and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A1—0 to 20 inches; loam
A2,A3,AB—20 to 46 inches; loam
Bg—46 to 54 inches; sandy loam
Cg—54 to 60 inches; sandy loam

Forestcity

Extent: 5 to 15 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Rims of depressions
Slope range: 0 to 2 percent
Texture of the surface layer: Fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
Ap,A1—0 to 22 inches; fine sandy loam
A2,AB—22 to 43 inches; loam
2Btg—43 to 60 inches; sandy clay loam
2BCg—60 to 80 inches; sandy loam

L110E—Lester-Ridgeton complex, 18 to 25 percent slopes

Component Description

Lester and similar soils

Extent: 45 to 65 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Shoulders and backslopes
Slope range: 18 to 25 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3 percent
Typical profile:
A—0 to 5 inches; loam
BE,Bt—5 to 34 inches; clay loam
Bk—34 to 60 inches; loam
C—60 to 80 inches; loam

Ridgeton and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Backslopes and footslopes
Slope range: 12 to 25 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,A3—0 to 32 inches; loam
Bw—32 to 40 inches; loam
C1,C2—40 to 80 inches; loam

Cokato

Extent: 10 to 20 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Summits and backslopes
Slope range: 18 to 25 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
A—0 to 16 inches; loam
Bt—16 to 30 inches; clay loam
Bk—30 to 60 inches; loam

Belview

Extent: 0 to 15 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Shoulders and backslopes
Slope range: 18 to 25 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
A—0 to 9 inches; loam
Bk—9 to 50 inches; loam
C—50 to 60 inches; loam

Hamel

Extent: 0 to 5 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Toeslopes
Slope range: 1 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1,A2—0 to 22 inches; loam
Btg—22 to 41 inches; clay loam
Cg—41 to 80 inches; loam

Terril

Extent: 1 to 5 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Footslopes
Slope range: 4 to 6 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
A1,A2—0 to 24 inches; loam
AB—24 to 37 inches; loam

Bw—37 to 57 inches; loam
C—57 to 80 inches; loam

L110F—Lester-Ridgeton complex, 25 to 45 percent slopes

Component Description

Lester and similar soils

Extent: 45 to 65 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Shoulders and backslopes
Slope range: 25 to 45 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.3 percent
Typical profile:
A—0 to 6 inches; loam
Bt—6 to 25 inches; clay loam
C—25 to 60 inches; loam

Ridgeton and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Backslopes and footslopes
Slope range: 18 to 25 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Colluvium over till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
A1,A2,A3—0 to 32 inches; loam
Bw—32 to 40 inches; loam
C1,C2—40 to 80 inches; loam

Cokato

Extent: 0 to 20 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Summits and backslopes
Slope range: 25 to 40 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
A—0 to 16 inches; loam
Bt—16 to 30 inches; clay loam
Bk—30 to 60 inches; loam

Belview

Extent: 2 to 15 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Backslopes and shoulders
Slope range: 25 to 45 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Till
Flooding: None
Depth to wet soil moisture status: More than 5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 3.7 percent
Typical profile:
A—0 to 9 inches; loam
Bk—9 to 50 inches; loam
C—50 to 60 inches; loam

Terril

Extent: 1 to 5 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Footslopes
Slope range: 4 to 6 percent
Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
A1,A2—0 to 24 inches; loam
AB—24 to 37 inches; loam
Bw—37 to 57 inches; loam
C—57 to 80 inches; loam

Hamel

Extent: 0 to 3 percent of the unit
Geomorphic setting: Escarpments on moraines
Position on the landform: Toeslopes
Slope range: 1 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
A1,A2—0 to 22 inches; loam
Btg—22 to 41 inches; clay loam
Cg—41 to 80 inches; loam

L131A—Litchfield loamy fine sand, 0 to 3 percent slopes

Component Description

Litchfield and similar soils

Extent: 75 to 95 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Flats and slight rises
Slope range: 0 to 3 percent
Texture of the surface layer: Loamy fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 1.3 feet (April)
Wet soil moisture status is lowest (depth, months): 3 feet (August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap,A,AB—0 to 20 inches; loamy fine sand
Bw—20 to 33 inches; fine sand
BC—33 to 40 inches; very fine sandy loam
C—40 to 80 inches; loamy fine sand

Darfur

Extent: 5 to 20 percent of the unit
Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Flats and swales
Slope range: 0 to 2 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Outwash
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.6 inches
Content of organic matter in the upper 10 inches: 5 percent
Typical profile:
Ap,A—0 to 16 inches; sandy loam
Bg—16 to 32 inches; sandy clay loam
Cg—32 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

Crowfork

Extent: 0 to 10 percent of the unit

Geomorphic setting: Stream terraces and outwash plains
Position on the landform: Slight rises
Slope range: 3 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Outwash
Flooding: None
Depth to wet soil moisture status: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 2 percent
Typical profile:
Ap—0 to 11 inches; loamy sand
E—11 to 20 inches; loamy fine sand
E&Bt—20 to 76 inches; loamy sand
C—76 to 80 inches; sand

L132A—Hamel-Glencoe, depressional, complex, 0 to 3 percent slopes

Component Description

Hamel and similar soils

Extent: 40 to 80 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Drainageways and swales
Slope range: 1 to 3 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 0.5 foot (April)
Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 6 percent
Typical profile:
Ap,A,AB—0 to 24 inches; loam
Btg—24 to 46 inches; clay loam
Cg—46 to 80 inches; loam

Glencoe, depressional, and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Depressions
Slope range: 0 to 1 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Till
Flooding: None
Wet soil moisture status is highest (depth, months): At the surface (March, April)
Wet soil moisture status is lowest (depth, months): 2 feet (February, August)
Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December
Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A,Bg1—13 to 31 inches; clay loam
Bg2—31 to 45 inches; loam
Cg—45 to 80 inches; loam

Hamel, overwash

Extent: 5 to 25 percent of the unit
Geomorphic setting: Moraines
Position on the landform: Drainageways and swales
Slope range: 1 to 4 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 1.5 feet (April)
Wet soil moisture status is lowest (depth, months): 4.5 feet (August)
Ponding: None
Available water capacity to a depth of 60 inches: 11.8 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
Ap—0 to 13 inches; loam
A—13 to 29 inches; clay loam

Btg—29 to 50 inches; clay loam
Cg—50 to 80 inches; loam

Terril

Extent: 0 to 10 percent of the unit
Geomorphic setting: Hills on moraines
Position on the landform: Footslopes
Slope range: 2 to 5 percent
Texture of the surface layer: Loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Colluvium over till
Flooding: None
Wet soil moisture status is highest (depth, months): 3.6 feet (April)
Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches
Content of organic matter in the upper 10 inches: 4 percent
Typical profile:
Ap,A1—0 to 27 inches; loam
A2,BA—27 to 40 inches; loam
Bw—40 to 63 inches; loam
C—63 to 80 inches; loam

M-W—Water, miscellaneous

Component Description

• This map unit consists of bodies of water that have been constructed, including sewage lagoons, storm-water sediment basins with a permanent pool of water, and aquaculture ponds.

U1A—Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes

Component Description

Urban land

Extent: 65 to 90 percent of the unit
Geomorphic setting: Stream terraces, moraines, and outwash plains
Slope range: 0 to 2 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of commercial, industrial, or residential areas and is covered by impervious surfaces. Most areas were originally wet, mineral or organic soils in depressions. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Udorthents, wet substratum

Extent: 10 to 35 percent of the unit
Geomorphic setting: Stream terraces, outwash plains, and moraines
Position on the landform: Filled depressions
Slope range: 0 to 2 percent
Parent material: Various soil material
Flooding: None
Ponding: None
General description: The Udorthents consist of fill material that has been placed in wet depressional areas to match the adjoining upland landscape. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

U2A—Udorthents, wet substratum, 0 to 2 percent slopes

Component Description

Udorthents, wet substratum

Extent: 100 percent of the unit
Geomorphic setting: Outwash plains, moraines, and stream terraces
Position on the landform: Filled depressions
Slope range: 0 to 2 percent
Parent material: Various soil material
Flooding: None
Ponding: None
General description: The Udorthents consist of fill material that has been placed in wet depressional areas to match the adjoining upland landscape. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

U3B—Udorthents (cut and fill land), 0 to 6 percent slopes

Component Description

Udorthents (cut and fill land)

Extent: 100 percent of the unit
Geomorphic setting: Moraines
Slope range: 0 to 6 percent

Parent material: Various loamy material
Flooding: None
Ponding: None
General description: Udorthents consist primarily of areas that have been cut for leveling or filled for development. The cut and/or fill material is dominantly loamy soil material. As much as 30 percent of this map unit is covered by impervious surfaces. Most of the areas have been disturbed by construction activity. Because of the variability of this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

U4A—Urban land-Udipsamments (cut and fill land) complex, 0 to 2 percent slopes

Component Description

Urban land

Extent: 65 to 85 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Slope range: 0 to 2 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of industrial parks, office buildings, warehouses, and railroad yards and is covered by impervious surfaces. Most areas were originally wet, mineral or organic soils in depressions. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Udipsamments (cut and fill land)

Extent: 15 to 50 percent of the unit
Geomorphic setting: Outwash plains and stream terraces
Slope range: 0 to 2 percent
Parent material: Various sandy material
Flooding: None
Ponding: None
General description: The Udipsamments consist of nearly level areas that have undergone minimal grading. The cut and fill material is dominantly sandy. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

U5A—Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes, rarely flooded

Component Description

Urban land

Extent: 35 to 85 percent of the unit
Geomorphic setting: Flood plains
Slope range: 0 to 2 percent
Flooding does not occur (months): January, February, March, July, August, September, October, November, December
Flooding is most likely (frequency, months): Rare (April, May, June)
Ponding: None
General description: Urban land consists mainly of commercial and residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Udorthents, wet substratum

Extent: 15 to 50 percent of the unit
Geomorphic setting: Flood plains
Position on the landform: Filled areas
Slope range: 0 to 2 percent
Parent material: Various soil material
Flooding does not occur (months): January, February, March, July, August, September, October, November, December
Flooding is most likely (frequency, months): Rare (April, May, June)
Ponding: None
General description: The Udorthents consist of fill material that has been placed in wet areas on flood plains to match the adjoining upland landscape. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

U6B—Urban land-Udorthents (cut and fill land) complex, 0 to 6 percent slopes

Component Description

Urban land

Extent: 35 to 80 percent of the unit
Geomorphic setting: Moraines

Slope range: 0 to 6 percent
Flooding: None
Ponding: None
General description: Urban land consists mainly of residential areas, industrial parks, office buildings, warehouses, railroad yards, and freeway interchanges and is covered by impervious surfaces. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

Udorthents (cut and fill land)

Extent: 20 to 65 percent of the unit
Geomorphic setting: Moraines
Slope range: 0 to 6 percent
Parent material: Various loamy material
Flooding: None
Ponding: None
General description: Udorthents consist primarily of areas that have been cut for leveling or filled for development. The cut and/or fill material is dominantly loamy soil material. As much as 30 percent of this component is covered by impervious surfaces. Most areas have been disturbed by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

W—Water

Component Description

• This map unit consists of naturally occurring bodies of water or bodies of water that have been impounded by structures in natural waterways.

Table 2.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
D1B	Anoka and Zimmerman soils, terrace, 2 to 6 percent slopes	1,122	0.3
D1C	Anoka and Zimmerman soils, terrace, 6 to 12 percent slopes	295	*
D2A	Elkriver fine sandy loam, 0 to 2 percent slopes, rarely flooded	506	0.1
D3A	Elkriver fine sandy loam, 0 to 2 percent slopes, occasionally flooded	472	0.1
D4A	Dorset sandy loam, 0 to 2 percent slopes	1,667	0.4
D4B	Dorset sandy loam, 2 to 6 percent slopes	423	0.1
D4C	Dorset sandy loam, 6 to 12 percent slopes	148	*
D5B	Dorset-Two Inlets complex, 2 to 6 percent slopes	171	*
D5C	Dorset-Two Inlets complex, 6 to 12 percent slopes	68	*
D5D	Dorset-Two Inlets complex, 12 to 18 percent slopes	31	*
D6A	Verndale sandy loam, acid substratum, 0 to 2 percent slopes	1,638	0.4
D6B	Verndale sandy loam, acid substratum, 2 to 6 percent slopes	362	*
D6C	Verndale sandy loam, acid substratum, 6 to 12 percent slopes	10	*
D7A	Hubbard loamy sand, 0 to 2 percent slopes	4,455	1.1
D7B	Hubbard loamy sand, 2 to 6 percent slopes	3,173	0.8
D7C	Hubbard loamy sand, 6 to 12 percent slopes	674	0.2
D8B	Sandberg loamy coarse sand, 2 to 6 percent slopes	26	*
D8C	Sandberg loamy coarse sand, 6 to 12 percent slopes	146	*
D8D	Sandberg loamy coarse sand, 12 to 18 percent slopes	212	*
D8E	Sandberg loamy coarse sand, 18 to 35 percent slopes	478	0.1
D10A	Forada sandy loam, 0 to 2 percent slopes	1,535	0.4
D11A	Lindaas silt loam, 0 to 2 percent slopes	39	*
D12B	Bygland silt loam, MAP >25, 2 to 6 percent slopes	80	*
D12C2	Bygland silt loam, MAP >25, 6 to 12 percent slopes, eroded	6	*
D13A	Langola loamy fine sand, terrace, 0 to 2 percent slopes	302	*
D13B	Langola loamy fine sand, terrace, 2 to 6 percent slopes	91	*
D15A	Seelyeville-Markey complex, depressional, 0 to 1 percent slopes	38	*
D16A	Seelyeville and Markey soils, ponded, 0 to 1 percent slopes	1,175	0.3
D17A	Duelm loamy sand, 0 to 2 percent slopes	1,997	0.5
D18B	Braham loamy fine sand, terrace, 2 to 5 percent slopes	155	*
D19A	Fordum-Winterfield complex, 0 to 2 percent slopes, frequently flooded	466	0.1
D20A	Isan sandy loam, 0 to 2 percent slopes	4,336	1.1
D21A	Isan sandy loam, depressional, 0 to 1 percent slopes	317	*

See footnote at end of table.

Table 2.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
D23A	Southhaven loam, 0 to 2 percent slopes	117	*
D24A	Sedgeville loam, 0 to 2 percent slopes, occasionally flooded	43	*
D25A	Soderville loamy fine sand, terrace, 0 to 3 percent slopes	1,911	0.5
D26A	Foldahl loamy sand, MAP >25, 0 to 3 percent slopes	282	*
D27A	Dorset sandy loam, loamy substratum, 0 to 2 percent slopes	153	*
D28B	Urban land-Bygland, MAP >25, complex, 1 to 6 percent slopes	1,227	0.3
D29B	Urban land-Hubbard, bedrock substratum, complex, 0 to 8 percent slopes	558	0.1
D30A	Seelyeville and Markey soils, depressional, 0 to 1 percent slopes	1,137	0.3
D31A	Urban land-Duelm complex, 0 to 2 percent slopes	2,567	0.7
D33B	Urban land-Dorset complex, 0 to 8 percent slopes	2,887	0.7
D33C	Urban land-Dorset complex, 8 to 18 percent slopes	105	*
D34B	Urban land-Hubbard complex, 0 to 8 percent slopes	15,060	3.9
D35A	Elkriver-Fordum complex, 0 to 2 percent slopes, occasionally flooded	190	*
D37F	Dorset, bedrock substratum-Rock outcrop complex, 25 to 65 percent slopes	223	*
D40A	Kratka loamy fine sand, thick solum, 0 to 2 percent slopes	298	*
D41C	Urban land-Waukon complex, 6 to 18 percent slopes	33	*
D43A	Gonvick loam, terrace, 1 to 3 percent slopes	34	*
GP	Pits, gravel-Udipsamments complex	1,664	0.4
L2B	Malardi-Hawick complex, 1 to 6 percent slopes	4,303	1.1
L2C	Malardi-Hawick complex, 6 to 12 percent slopes	2,922	0.8
L2D	Malardi-Hawick complex, 12 to 18 percent slopes	1,151	0.3
L2E	Malardi-Hawick complex, 18 to 35 percent slopes	1,199	0.3
L3A	Rasset sandy loam, 0 to 2 percent slopes	86	*
L3B	Rasset sandy loam, 2 to 6 percent slopes	895	0.2
L3C	Rasset sandy loam, 6 to 12 percent slopes	623	0.2
L4B	Crowfork loamy sand, 1 to 6 percent slopes	705	0.2
L4C	Crowfork loamy sand, 6 to 12 percent slopes	916	0.2
L4D	Crowfork loamy sand, 12 to 18 percent slopes	651	0.2
L6A	Biscay loam, 0 to 2 percent slopes	465	0.1
L7A	Biscay loam, depressional, 0 to 1 percent slopes	73	*
L8A	Darfur sandy loam, 0 to 2 percent slopes	98	*
L9A	Minnetonka silty clay loam, 0 to 2 percent slopes	1,427	0.4
L10B	Kasota silty clay loam, 1 to 6 percent slopes	95	*
L11B	Grays very fine sandy loam, 2 to 8 percent slopes	471	0.1
L12A	Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes, frequently flooded	1,953	0.5
L13A	Klossner muck, depressional, 0 to 1 percent slopes	389	0.1
L14A	Houghton muck, depressional, 0 to 1 percent slopes	927	0.2
L15A	Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes	468	0.1
L16A	Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes	10,064	2.6
L17B	Angus-Malardi complex, 2 to 6 percent slopes	906	0.2
L18A	Shields silty clay loam, 0 to 3 percent slopes	283	*
L19B	Moon loamy fine sand, 2 to 5 percent slopes	324	*
L20B	Fedji loamy fine sand, silty substratum, 2 to 8 percent slopes	202	*
L21A	Canisteo loam, 0 to 2 percent slopes	236	*
L22C2	Lester loam, morainic, 6 to 12 percent slopes, eroded	27,724	7.1
L22D2	Lester loam, morainic, 12 to 18 percent slopes, eroded	9,316	2.4
L22E	Lester loam, morainic, 18 to 25 percent slopes	3,506	0.9
L22F	Lester loam, morainic, 25 to 35 percent slopes	1,958	0.5
L23A	Cordova loam, 0 to 2 percent slopes	15,159	3.9
L24A	Glencoe loam, depressional, 0 to 1 percent slopes	6,986	1.8
L25A	Le Sueur loam, 1 to 3 percent slopes	6,390	1.6
L26A	Shorewood silty clay loam, 0 to 3 percent slopes	436	0.1
L26B	Shorewood silty clay loam, 3 to 6 percent slopes	991	0.3
L26C2	Shorewood silty clay loam, 6 to 12 percent slopes, eroded	169	*
L27A	Suckercreek loam, 0 to 2 percent slopes, frequently flooded	868	0.2
L28A	Suckercreek fine sandy loam, 0 to 2 percent slopes, occasionally flooded	871	0.2
L29A	Hanlon fine sandy loam, 0 to 2 percent slopes, occasionally flooded	117	*
L30A	Medo soils, depressional, 0 to 1 percent slopes	842	0.2
L31A	Medo, Dassel, and Biscay soils, ponded, 0 to 1 percent slopes	246	*
L32D	Hawick loamy sand, 12 to 18 percent slopes	102	*
L32F	Hawick loamy sand, 18 to 40 percent slopes	1,617	0.4
L35A	Lerdal loam, 1 to 3 percent slopes	1,607	0.4

See footnote at end of table.

Table 2.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
L36A	Hamel, overwash-Hamel complex, 1 to 4 percent slopes	15,504	4.0
L37B	Angus loam, morainic, 2 to 5 percent slopes	25,459	6.5
L38A	Rushriver very fine sandy loam, 0 to 2 percent slopes, occasionally flooded	811	0.2
L39A	Minneiska fine sandy loam, 0 to 2 percent slopes, occasionally flooded	1,111	0.3
L40B	Angus-Kilkenny complex, 2 to 6 percent slopes	6,800	1.7
L41C2	Lester-Kilkenny complex, 6 to 12 percent slopes, eroded	8,795	2.3
L41D2	Lester-Kilkenny complex, 12 to 18 percent slopes, eroded	4,318	1.1
L41E	Lester-Kilkenny complex, 18 to 25 percent slopes	1,681	0.4
L41F	Lester-Kilkenny complex, 25 to 35 percent slopes	430	0.1
L42B	Kingsley-Gotham complex, 2 to 6 percent slopes	460	0.1
L42C	Kingsley-Gotham complex, 6 to 12 percent slopes	954	0.2
L42D	Kingsley-Gotham complex, 12 to 18 percent slopes	660	0.2
L42E	Kingsley-Gotham complex, 18 to 25 percent slopes	443	0.1
L42F	Kingsley-Gotham complex, 25 to 35 percent slopes	602	0.2
L43A	Brouillett loam, 0 to 2 percent slopes, occasionally flooded	387	*
L44A	Nessel loam, 1 to 3 percent slopes	6,849	1.8
L45A	Dundas-Cordova complex, 0 to 3 percent slopes	3,593	0.9
L46A	Tomall loam, 0 to 2 percent slopes	743	0.2
L47A	Eden Prairie sandy loam, 0 to 2 percent slopes	590	0.2
L47B	Eden Prairie sandy loam, 2 to 6 percent slopes	999	0.3
L47C	Eden Prairie sandy loam, 6 to 12 percent slopes	733	0.2
L49A	Klossner soils, depressional, 0 to 1 percent slopes	3,581	0.9
L50A	Houghton and Muskego soils, depressional, 0 to 1 percent slopes	12,987	3.3
L52C	Urban land-Lester complex, 2 to 18 percent slopes	11,105	2.9
L52E	Urban land-Lester complex, 18 to 35 percent slopes	694	0.2
L53B	Urban land-Moon complex, 2 to 8 percent slopes	363	*
L54A	Urban land-Dundas complex, 0 to 3 percent slopes	1,328	0.3
L55B	Urban land-Malardi complex, 0 to 8 percent slopes	12,043	3.1
L55C	Urban land-Malardi complex, 8 to 18 percent slopes	3,142	0.8
L56A	Muskego and Klossner soils, 0 to 1 percent slopes, frequently flooded	1,396	0.4
L58B	Koronis-Kingsley complex, 2 to 6 percent slopes	1,575	0.4
L58C2	Koronis-Kingsley complex, 6 to 12 percent slopes, eroded	1,237	0.3
L58D2	Koronis-Kingsley complex, 12 to 18 percent slopes, eroded	321	*
L58E	Koronis-Kingsley complex, 18 to 25 percent slopes	234	*
L59A	Forestcity-Lundlake, depressional, complex, 0 to 3 percent slopes	671	0.2
L60B	Angus-Moon complex, 2 to 5 percent slopes	1,440	0.4
L61C2	Lester-Metea complex, 6 to 12 percent slopes, eroded	1,996	0.5
L61D2	Lester-Metea complex, 12 to 18 percent slopes, eroded	583	0.1
L61E	Lester-Metea complex, 18 to 25 percent slopes	395	0.1
L62B	Koronis-Kingsley-Malardi complex, 2 to 6 percent slopes	139	*
L62C2	Koronis-Kingsley-Malardi complex, 6 to 12 percent slopes, eroded	714	0.2
L62D2	Koronis-Kingsley-Malardi complex, 12 to 18 percent slopes, eroded	135	*
L62E	Koronis-Kingsley-Malardi complex, 18 to 35 percent slopes	764	0.2
L64A	Tadkee-Tadkee, depressional, complex, 0 to 2 percent slopes	1,325	0.3
L70C2	Lester-Malardi complex, 6 to 12 percent slopes, eroded	2,288	0.6
L70D2	Lester-Malardi complex, 12 to 18 percent slopes, eroded	622	0.2
L70E	Lester-Malardi complex, 18 to 35 percent slopes	584	0.2
L71C	Metea loamy fine sand, 6 to 12 percent slopes	175	*
L72A	Lundlake loam, depressional, 0 to 1 percent slopes	48	*
L110E	Lester-Ridgeton complex, 18 to 25 percent slopes	17	*
L110F	Lester-Ridgeton complex, 25 to 45 percent slopes	111	*
L131A	Litchfield loamy fine sand, 0 to 3 percent slopes	56	*
L132A	Hamel-Glencoe, depressional, complex, 0 to 3 percent slopes	3,207	0.8
M-W	Water, miscellaneous	457	0.1
U1A	Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes	12,415	3.2
U2A	Udorthents, wet substratum, 0 to 2 percent slopes	4,938	1.3
U3B	Udorthents (cut and fill land), 0 to 6 percent slopes	1,527	0.4
U4A	Urban land-Udipsamments (cut and fill land) complex, 0 to 2 percent slopes	14,091	3.6
U5A	Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes, rarely flooded	665	0.2

See footnote at end of table.

Table 2.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
U6B	Urban land-Udorthents (cut and fill land) complex, 0 to 6 percent slopes	9,780	2.5
W	Water	32,089	8.2
	Total	389,000	100.0

* Less than 0.1 percent.

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as forest land; as sites for buildings, highways and other transportation systems, and parks and other recreational facilities; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of sand and gravel, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *well suited, moderately suited, poorly suited,* and *unsuited* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

General management needed for crops and for hay and pasture is suggested in this section. Climate information for the survey area is provided, the estimated yields of the main crops and hay and pasture plants are listed, the system of land capability classification used by the Natural Resources Conservation Service is explained, and prime farmland is described. Planners of management systems for individual fields or farms should consider obtaining specific information from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Climate

Table 3 gives data on temperature and precipitation for the survey area as recorded at the Minneapolis-St. Paul International Airport during the period from 1961 to 1990. Table 4 shows probable dates of the first freeze in fall and the last freeze in spring. Table 5 provides data on length of the growing season.

In winter, the average temperature is 15.6 degrees F and the average daily minimum temperature is 7.1 degrees. The lowest temperature during the period of record is -34 degrees. In summer, the average temperature is 71 degrees and the average daily maximum temperature is 81 degrees. The highest recorded temperature is 105 degrees.

Growing degree days are shown in table 3. They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is about 28 inches. Of this total, about 20 inches, or 70 percent, usually falls in April through September. The growing season for most crops falls within this period.

The average seasonal snowfall is about 56 inches. On an average, 97 days per year have at least 1 inch of snow on the ground.

Cropland Management Considerations

The management concerns affecting the use of the soil map units in the survey area for crops are shown in table 6. The main concerns in managing nonirrigated cropland are conserving moisture, controlling wind erosion and water erosion, and maintaining soil fertility.

Conserving moisture consists primarily of reducing the evaporation and runoff rates and increasing the water infiltration rate. Applying conservation tillage and conservation cropping systems, farming on the contour, stripcropping, establishing field windbreaks, and leaving crop residue on the surface conserve moisture.

Generally, a combination of several practices is needed to control *wind erosion* and *water erosion.* Conservation tillage, stripcropping, field windbreaks, contour farming, conservation cropping systems, crop residue management, terraces, diversions, and grassed waterways help to prevent excessive soil loss.

Measures that are effective in maintaining *soil fertility* include applying fertilizer, both organic and inorganic, including manure; incorporating crop residue or green manure crops into the soil; and using proper crop rotations. Controlling erosion helps to prevent the loss of organic matter and plant nutrients and thus helps to maintain productivity, although the level of fertility can be reduced even in areas where erosion is controlled. All soils used for nonirrigated crops respond well to applications of fertilizer.

Some of the considerations shown in the table cannot be easily overcome. These are channels, flooding, gullies, and ponding.

Additional considerations are as follows:

Lime content, limited available water capacity, limited content of organic matter, potential poor tilth and compaction, and *restricted permeability.*—These limitations can be minimized by incorporating green manure crops, manure, or crop residue into the soil; applying a system of conservation tillage; and using conservation cropping systems. Also, crops may respond well to additions of phosphate fertilizer to soils that have a high content of lime.

Potential for ground-water contamination.—The proper use of nutrients and pesticides can reduce the risk of ground-water contamination.

Potential for surface-water contamination.—The risk of surface-water contamination can be reduced by the proper use of nutrients and pesticides and by conservation farming practices that reduce the runoff rate.

Surface crusting.—This limitation retards seedling development after periods of heavy rainfall.

Surface rock fragments.—This limitation causes rapid wear of tillage equipment. It cannot be easily overcome.

Surface stones.—Stones or boulders on or near the surface can hinder normal tillage unless they are removed.

Salt content.—In areas where this is a limitation, only salt-tolerant crops should be grown.

On irrigated soils the main management concerns are efficient water use, nutrient management, control of erosion, pest and weed control, and timely planting and harvesting for a successful crop. An irrigation system that provides optimum control and distribution of water at minimum cost is needed. Overirrigation wastes water, leaches plant nutrients, and causes erosion. Also, it can increase wetness and soil salinity.

Explanation of Criteria

Acid soil.—The pH is less than 6.1.

Channeled.—The word "channeled" is included in the map unit name.

Dense layer.—The bulk density is 1.80 g/cc or greater within the soil profile.

Depth to rock.—The depth to bedrock is less than 40 inches.

Eroded.—The word “eroded” is included in the map unit name.

Excessive permeability.—Saturated hydraulic conductivity is 42 micrometers per second or more within the soil profile.

Flooding.—Flooding is occasional, frequent, or very frequent.

Gullied.—The word “gullied” is included in the map unit name.

High content of organic matter.—The surface layer has more than 20 percent organic matter.

Lime content.—The pH is 7.4 or more in the surface layer, or the wind erodibility group is 4L.

Limited available water capacity.—The available water capacity calculated to a depth of 60 inches or to a root-limiting layer is 6 inches or less.

Limited content of organic matter.—The content of organic matter is 2 percent or less in the surface layer.

Ponding.—Ponding duration is assigned to the soil. Water is above the surface.

Potential poor tilth and compaction.—The content of clay is 27 percent or more in the surface layer.

Potential for ground-water contamination (by nutrients or pesticides).—The depth to a zone in which the soil moisture status is wet is 4 feet or less, the saturated hydraulic conductivity of any layer is more than 42 micrometers per second, or the depth to bedrock is less than 60 inches.

Potential for surface-water contamination (by nutrients or pesticides).—The soil is occasionally, frequently, or very frequently flooded, is subject to ponding, is assigned to hydrologic group C or D and has a slope of more than 2 percent, is assigned to hydrologic group A and has a slope of more than 6 percent, or is assigned to hydrologic group B, has a slope of 3 percent or more, and has a K factor of more than 0.17.

Previously eroded.—The word “eroded” is included in the map unit name.

Restricted permeability.—Saturated hydraulic conductivity is less than 0.42 micrometer per second within the soil profile.

Salt content.—The electrical conductivity is 4 or more in the surface layer or 8 or more within a depth of 30 inches.

Slope (equipment limitation).—The slope is more than 15 percent.

Surface crusting.—The content of clay is 27 percent or more and the content of organic matter is 2 percent or less in the surface layer.

Surface rock fragments (equipment limitation).—The terms describing the texture of the surface layer include any rock fragment modifier, except for gravelly, channery, stony, very stony, extremely stony, bouldery, very bouldery, and extremely bouldery.

Surface stones (equipment limitation).—The word “stony” or “bouldery” is included in the description of the surface layer, or 0.01 percent or more of the surface is covered by boulders.

Water erosion.—Either the slope is 6 percent or more, or the slope is more than 3 percent and less than 6 percent and the surface layer is not sandy.

Wet soil moisture status.—A zone in which the soil moisture status is wet is within 2.5 feet of the surface.

Wind erosion.—The wind erodibility group is 1, 2, 3, or 4L.

Hydrologic groups are described under the heading “Water Features.” Erosion factors (e.g., K factor) and wind erodibility groups are described under the heading “Physical and Chemical Properties.”

Crop Yield Estimates

The average yields per acre that can be expected of the principal crops and hay and pasture plants under a high level of management are shown in tables 7a and 7b. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the tables.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

For yields of irrigated crops, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is

developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the tables are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Pasture and Hayland Interpretations

Soils are assigned to forage suitability groups according to their suitability for the production of forage vegetation. The soils in each group are similar enough to be suited to the same species of grasses or legumes, have similar limitations and hazards, require similar management, and have similar productivity levels and other responses to management. The forage suitability groups of the soils in the survey area are listed in table 8. Detailed descriptions of forage suitability groups are available at local offices of the Natural Resources Conservation Service.

Under good management, proper grazing is essential for the production of high-quality forage, stand survival, and erosion control. Proper grazing helps plants to maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control generally is needed. Rotation grazing and renovation also are important management practices.

Yield estimates are often provided in animal unit months (AUM), or the amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about forage yields other than those shown in tables 7a and 7b.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not take into account major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for woodland or for engineering purposes.

In the capability system, soils generally are grouped at three levels—capability class, subclass, and unit (USDA, 1961). These categories indicate the degree and kinds of limitations affecting mechanized farming systems that produce the more commonly grown field crops, such as corn, small grain, cotton, hay, and field-grown vegetables. Only class and subclass are used in this survey.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use.

If properly managed, soils in classes 1, 2, 3, and 4 are suitable for the mechanized production of commonly grown field crops and for pasture and woodland. The degree of the soil limitations affecting the production of cultivated crops increases progressively from class 1 to class 4. The limitations can affect levels of production and the risk of permanent soil deterioration caused by erosion and other factors.

Soils in classes 5, 6, and 7 are generally not suited to the mechanized production of commonly grown field crops without special management, but they are suitable for plants that provide a permanent cover, such as grasses and trees. The severity of the soil limitations affecting crops increases progressively from class 5 to class 7.

Areas in class 8 are generally not suitable for crops, pasture, or woodland without a level of management that is impractical. These areas may have potential for other uses, such as recreational facilities and wildlife habitat.

Capability subclasses identify the dominant kind of limitation in the class. They are designated by adding a small letter, *e, w, s,* or *c,* to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless a close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c,* used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class 1 because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w, s,* or *c* because the soils in class 5 are subject to little or no

erosion. They have other limitations that restrict their use mainly to pasture, woodland, wildlife habitat, or recreation.

The capability classification of map units in the survey area is given in the yields tables.

Prime Farmland

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. The acreage of high-quality farmland is limited, and the U.S. Department of Agriculture recognizes that government at local, State, and Federal levels, as well as individuals, must encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland soils, as defined by the U.S. Department of Agriculture, are soils that are best suited to food, feed, forage, fiber, and oilseed crops. Such soils have properties that favor the economic production of sustained high yields of crops. The soils need only to be treated and managed by acceptable farming methods. An adequate moisture supply and a sufficiently long growing season are required. Prime farmland soils produce the highest yields with minimal expenditure of energy and economic resources, and farming these soils results in the least damage to the environment.

Prime farmland soils may presently be used as cropland, pasture, or woodland or for other purposes. They either are used for food and fiber or are available for these uses. Urban or built-up land, public land, and water areas cannot be considered prime farmland. Urban or built-up land is any contiguous unit of land 10 acres or more in size that is used for such purposes as housing, industrial, and commercial sites, sites for institutions or public buildings, small parks, golf courses, cemeteries, railroad yards, airports, sanitary landfills, sewage treatment plants, and water-control structures. Public land is land not available for farming in National forests, National parks, military reservations, and State parks.

Prime farmland soils commonly receive an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable, and the level of acidity or alkalinity and the content of salts and sodium are acceptable. The soils have few, if any, rocks and are permeable to water and air. They are not excessively erodible or saturated with water for long periods, and they are not frequently flooded during the growing season or are protected from flooding. Slopes range mainly from 0 to 6 percent.

Soils in which a saturated zone is high in the profile or soils that are subject to flooding may qualify as prime farmland where these limitations are overcome by drainage measures or flood control. Onsite evaluation is necessary to determine the effectiveness of corrective measures. More information about the criteria for prime farmland can be obtained at the local office of the Natural Resources Conservation Service.

A recent trend in land use has been the conversion of prime farmland to urban and industrial uses. The loss of prime farmland to other uses puts pressure on lands that are less productive than prime farmland.

About 108,680 acres, or nearly 28 percent of the survey area, meets the requirements for prime farmland.

The map units in the survey area that meet the requirements for prime farmland are listed in table 9. This list does not constitute a recommendation for a particular land use. On some soils included in the table, measures that overcome limitations are needed. The need for these measures is indicated in parentheses after the map unit name. The location of each map unit is shown on the soil maps. The soil qualities that affect use and management are described in the section "Soil Map Unit Descriptions."

Windbreaks and Environmental Plantings

Windbreaks protect livestock, buildings, and yards from wind and snow. They also protect fruit trees and gardens, and they furnish habitat for wildlife. Several rows of low- and high-growing broadleaf and coniferous trees and shrubs provide the most protection.

Field windbreaks are narrow plantings made at right angles to the prevailing wind and at specific intervals across the field. The interval depends on the erodibility of the soil. Field windbreaks protect cropland and crops from wind, help to keep snow on the fields, and provide food and cover for wildlife.

Environmental plantings help to beautify and screen houses and other buildings and to abate noise. The plants, mostly evergreen shrubs and trees, are closely spaced. To ensure plant survival, a healthy planting stock of suitable species should be planted properly on a well prepared site and maintained in good condition.

Windbreaks are often planted on land that did not originally support trees. Knowledge of how trees perform on such land can be gained only by observing and recording the performance of trees that have been planted and have survived. Many popular windbreak species are not indigenous to the areas in which they are planted.

Each tree or shrub species has certain climatic and

physiographic limits. Within these parameters, a tree or shrub may grow well or grow poorly, depending on the characteristics of the soil. Each tree or shrub has definable potential heights in a given physiographic area and under a given climate. Accurate definitions of potential heights are necessary when a windbreak is planned and designed.

Table 10 shows the height that locally grown trees and shrubs are expected to reach in 20 years on various soils. The estimates in this table are based on measurements and observation of established plantings that have been given adequate care. They can be used as a guide in planning windbreaks and screens. Additional information on planning windbreaks and screens and planting and caring for trees and shrubs can be obtained from local offices of the Natural Resources Conservation Service or the Cooperative Extension Service or from a nursery.

Windbreak Suitability Groups

Windbreak suitability groups consist of soils in which the kinds and degrees of the hazards and limitations that affect the survival and growth of trees and shrubs in windbreaks are about the same. The windbreak suitability groups assigned to the soils in the survey area are listed in table 11.

Group 1 consists of soils that are somewhat poorly drained or moderately well drained, are rapidly permeable to moderately slowly permeable, and do not have free carbonates in the upper 20 inches.

Group 1K consists of soils that are somewhat poorly drained or moderately well drained, are rapidly permeable to moderately slowly permeable, and have free carbonates within 20 inches of the surface. These soils may be very slightly saline or slightly saline (the electrical conductivity is 2 to 8).

Group 2 consists of poorly drained soils that have been artificially drained and do not have free carbonates in the upper 20 inches. Permeability varies.

Group 2H consists of very poorly drained soils that have been artificially drained and have more than 16 inches of organic material. Permeability varies.

Group 2K consists of poorly drained or very poorly drained soils that have been artificially drained and have free carbonates within 20 inches of the surface. Permeability varies. These soils may be very slightly saline or slightly saline (the electrical conductivity is 2 to 8).

Group 2W consists of very poorly drained soils that are subject to ponding and have been artificially drained. It includes soils that have an organic surface layer up to 16 inches thick. Permeability varies.

Group 3 consists of soils that are well drained or moderately well drained and are loamy or silty throughout. Permeability is moderate or moderately slow. These soils do not have free carbonates in the upper 20 inches.

Group 4 consists of soils that are well drained, moderately well drained, or somewhat poorly drained and have a silty or loamy surface layer and a clayey subsoil. Permeability is slow or very slow.

Group 4C consists of soils that are well drained, moderately well drained, or somewhat poorly drained and have a clayey surface layer and subsoil. Permeability is slow or very slow.

Group 4F consists of soils that are well drained, moderately well drained, or somewhat poorly drained and have a substratum of dense till. Permeability is slow or very slow.

Group 5 consists of soils that are excessively drained to moderately well drained and have a moderate available water capacity. These soils are dominantly fine sandy loam or sandy loam, but some are sandy in the upper part and loamy in the lower part.

Group 6D consists of excessively drained to moderately well drained, loamy soils that have bedrock at a depth of 20 to 40 inches. These soils have a low or moderate available water capacity.

Group 6G consists of excessively drained to moderately well drained soils that are loamy in the upper part and have sand or sand and gravel at a depth of 20 to 40 inches. These soils have a low or moderate available water capacity.

Group 7 consists of excessively drained to well drained soils that are dominantly loamy fine sand or coarser textured and are shallow to sand or to sand and gravel. These soils have a low available water capacity.

Group 8 consists of excessively drained to well drained, loamy soils that have free carbonates within 20 inches of the surface.

Group 9W consists of soils that are somewhat poorly drained, poorly drained, or very poorly drained and are moderately saline (the electrical conductivity is 8 to 16).

Group 10 consists of soils or miscellaneous areas that generally are not suitable for windbreaks. One or more characteristics, such as soil depth, texture, wetness, available water capacity, or slope, limit the planting, survival, or growth of trees and shrubs.

Recreation

The soils of the survey area are rated in tables 12a and 12b according to limitations that affect their suitability for recreation. The ratings are both verbal

and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses.

Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in the tables can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas.

The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a zone in which the soil moisture status is wet, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a zone in which the soil moisture status is wet, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a zone in which the soil moisture status is wet, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These

properties are stoniness, depth to a zone in which the soil moisture status is wet, ponding, flooding, slope, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a zone in which the soil moisture status is wet, ponding, flooding, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a zone in which the soil moisture status is wet; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a zone in which the soil moisture status is wet, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Wildlife Habitat

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. If food, cover, or water is missing, inadequate, or inaccessible, wildlife will be scarce or will not inhabit the area.

If the soils have potential for habitat development, wildlife habitat can be created or improved by planting appropriate vegetation, properly managing the existing plant cover, and fostering the natural establishment of desirable plants.

In table 13, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants used by wildlife. Examples are corn, soybeans, wheat, oats, and barley.

Grasses and legumes are domestic perennial grasses and herbaceous legumes planted for wildlife food and cover. Examples are bromegrass, timothy, orchardgrass, clover, alfalfa, and wheatgrass.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds, that provide food and cover for wildlife. Examples are bluestems, indiangrass, blueberry, goldenrod, lambsquarters, dandelions, blackberry, ragweed, and wheatgrass.

The major soil properties affecting the growth of grain and forage crops and wild herbaceous plants are depth of the root zone, texture of the surface layer, the amount of water available to plants, wetness, salinity, and flooding. The length of the growing season also is important.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage that wildlife eat. Examples are oak, poplar, hickory, birch, maple, green ash, willow, and American elm.

Coniferous plants are cone-bearing trees, shrubs, or ground cover that provide habitat or supply food in the form of browse, seed, or fruit-like cones. Examples are pine, spruce, cedar, and tamarack.

The major soil properties affecting the growth of hardwood and coniferous trees and shrubs are depth of the root zone, the amount of water available to plants, and wetness.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Wetland plants produce food or cover for wetland wildlife. Examples of these plants are smartweeds,

wild millet, rushes, sedges, bulrushes, wild rice, arrowhead, waterplantain, cattail, prairie cordgrass, bluejoint grass, asters, and beggarticks.

The major soil properties affecting wetland plants are texture of the surface layer, wetness, acidity or alkalinity, and slope.

Shallow water areas have an average depth of less than 5 feet. They are useful as habitat for some wildlife species. They are naturally wet areas or are created by dams, levees, or water-control measures in marshes or streams. Examples are waterfowl feeding areas, wildlife watering developments, beaver ponds, and other wildlife ponds.

The major soil properties affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and permeability.

The habitat for various kinds of wildlife is described in the following paragraphs.

Habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, and shrubs. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. The wildlife attracted to these areas include Hungarian partridge, ring-necked pheasant, bobwhite quail, sharp-tailed grouse, meadowlark, field sparrow, killdeer, cottontail rabbit, and red fox.

Habitat for woodland wildlife consists of areas of hardwoods or conifers or a mixture of these and associated grasses, legumes, and wild herbaceous plants. The wildlife attracted to this habitat include wild turkey, ruffed grouse, thrushes, woodpeckers, owls, tree squirrels, porcupine, raccoon, and white-tailed deer.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas, bogs, or flood plains that support water-tolerant plants. The wildlife attracted to this habitat include ducks, geese, herons, bitterns, rails, kingfishers, muskrat, otter, mink, and beaver.

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading “Soil Properties.”

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a zone in which the soil moisture status is wet, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, linear extensibility, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, earthfill, and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Tables 14a and 14b show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development.

Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a zone in which the soil moisture status is wet, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a zone in which the soil moisture status is wet, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a zone in which the soil moisture status is wet, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a zone in which the soil moisture status is wet, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a zone in which the soil moisture status is wet, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a zone in which the soil moisture status is wet, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to a zone in which the soil moisture

status is wet, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to a zone in which the soil moisture status is wet, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a zone in which the soil moisture status is wet; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a zone in which the soil moisture status is wet, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Construction Materials

Tables 15a and 15b give information about the soils as potential sources of gravel, sand, reclamation material, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

Sand and *gravel* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 15a, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good, fair,* or *poor* as potential sources of sand and gravel. A rating of good or fair means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

The soils are rated *good, fair, or poor* as potential sources of reclamation material, roadfill, and topsoil. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of reclamation material, roadfill, or topsoil. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In table 15b, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a zone in which the soil moisture status is wet, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading,

and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a zone in which the soil moisture status is wet, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a zone in which the soil moisture status is wet, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Water Management

Table 16 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses.

Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A seasonal zone in which the soil moisture status is wet affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent zone in which the soil moisture status is wet. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent zone in which the soil moisture status is wet, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Table 3.--Temperature and Precipitation

(Recorded in the period 1961-90 at Minneapolis-St. Paul, Minnesota)

Month	Temperature						Precipitation				
				2 years in 10 will have--				2 years in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temperature higher than--	Minimum temperature lower than--	Average number of growing degree days*	Average	Less than--	More than--	Average number of days with 0.10 inch or more	Average snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January----	20.6	2.6	11.6	46	-28	0	0.96	0.39	1.43	3	12.5
February---	26.4	8.8	17.6	51	-23	2	.89	.34	1.35	2	9.2
March------	39.1	22.3	30.7	72	-9	39	1.94	1.09	2.70	4	11.6
April------	56.5	35.9	46.2	86	15	232	2.45	1.17	3.56	5	3.6
May--------	69.4	47.6	58.5	92	28	575	3.40	1.93	4.70	7	.1
June-------	78.8	57.5	68.2	97	41	845	4.05	1.84	5.94	7	.0
July-------	83.9	63.0	73.5	99	48	1,036	3.53	1.63	5.17	5	.0
August-----	80.6	60.1	70.4	97	44	940	3.62	2.03	5.03	6	.0
September--	70.6	50.2	60.4	92	30	612	2.72	1.35	3.91	6	.0
October----	58.8	38.8	48.8	84	20	292	2.19	.78	3.36	4	.4
November---	41.0	25.1	33.1	67	-2	46	1.55	.50	2.42	3	7.3
December---	25.5	10.0	17.8	51	-20	2	1.08	.48	1.60	3	11.3
Yearly:											
Average---	54.3	35.2	44.7	---	---	---	---	---	---	---	---
Extreme---	105	-34	---	100	-29	---	---	---	---	---	---
Total-----	---	---	---	---	---	4,619	28.37	22.63	33.81	55	55.9

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (40 degrees F).

Table 4.--Freeze Dates in Spring and Fall

(Recorded in the period 1961-90 at Minneapolis-St. Paul, Minnesota)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	Apr. 20	May 5	May 15
2 years in 10 later than--	Apr. 16	Apr. 29	May 10
5 years in 10 later than--	Apr. 7	Apr. 19	May 1
First freezing temperature in fall:			
1 year in 10 earlier than--	Oct. 14	Sept. 26	Sept. 19
2 years in 10 earlier than--	Oct. 20	Oct. 2	Sept. 24
5 years in 10 earlier than--	Oct. 30	Oct. 14	Oct. 4

Table 5.--Growing Season

(Recorded in the period 1961-90 at Minneapolis-St. Paul, Minnesota)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	184	152	137
8 years in 10	191	161	143
5 years in 10	204	178	155
2 years in 10	217	195	167
1 year in 10	224	204	173

Table 6.--Cropland Management Considerations

(See text for a description of the considerations listed in this table. Absence of an entry indicates that the map unit or component is generally not suited to use as cropland)

Map symbol and component name	Pct. of map unit	Cropland management considerations
D1B:		
Anoka, terrace	55	Limited available water capacity Potential for ground-water contamination Wind erosion
Zimmerman, terrace	40	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
Kost	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D1C:		
Anoka, terrace	45	Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Zimmerman, terrace	45	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Kost	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
D2A:		
Elkriver, rarely flooded	85	Excessive permeability Potential for ground-water contamination Wind erosion
Mosford, rarely flooded	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Elkriver, occasionally flooded	5	Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D3A:		
Elkriver, occasionally flooded	80	Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Fordum, frequently flooded	15	Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Winterfield, occasionally flooded	5	Flooding Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
D4A:		
Dorset	90	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Verndale, acid substratum	8	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Almora	2	Excessive permeability Potential for ground-water contamination
D4B:		
Dorset	85	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Verndale, acid substratum	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Almora	5	Excessive permeability Potential for ground-water contamination
D4C:		
Dorset	75	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D4C:		
Verndale, acid substratum	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Almora	10	Excessive permeability Potential for ground-water contamination
D5B:		
Dorset	65	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Two Inlets	25	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
Verndale, acid substratum	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Southhaven	5	Excessive permeability Potential for ground-water contamination
D5C:		
Dorset	55	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Two Inlets	30	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Southhaven	10	Excessive permeability Potential for ground-water contamination
Verndale, acid substratum	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D5D:		
Dorset	50	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Two Inlets	35	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Southhaven	10	Excessive permeability Potential for ground-water contamination
Verndale, acid substratum	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
D6A:		
Verndale, acid substratum	90	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Dorset	7	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Hubbard	3	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D6B:		
Verndale, acid substratum	85	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Dorset	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Hubbard	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D6C:		
Verndale, acid substratum	80	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Dorset	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Hubbard	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
D7A:		
Hubbard	95	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Mosford	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D7B:		
Hubbard	90	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Mosford	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D7C:		
Hubbard	80	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Sandberg	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Mosford	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D8B:		
Sandberg	95	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Arvilla, MAP >25	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D8C:		
Sandberg	80	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Corliss	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Southhaven	5	Excessive permeability Potential for ground-water contamination
D8D:		
Sandberg	80	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Corliss	10	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Southhaven	10	Excessive permeability Potential for ground-water contamination
D8E:		
Sandberg	80	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Corliss	10	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D8E:		
Southhaven	10	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination
D10A:		
Forada	95	Excessive permeability Potential for ground-water contamination Wet soil moisture status Wind erosion
Depressional soil	5	Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
D11A:		
Lindaas	80	Potential for ground-water contamination Wet soil moisture status
Lindaas, sandy substratum	10	Excessive permeability Potential for ground-water contamination Wet soil moisture status
Depressional soil	10	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
D12B:		
Bygland, MAP >25	70	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Bygland, sandy substratum	15	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
Lindaas	10	Potential for ground-water contamination Wet soil moisture status
Depressional soil	5	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
D12C2:		
Bygland, MAP >25	70	Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Bygland, sandy substratum	15	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D12C2:		
Lindaas	10	Potential for ground-water contamination Previously eroded Wet soil moisture status
Depressional soil	5	Ponding Potential for ground-water contamination Potential for surface-water contamination Previously eroded Wet soil moisture status
D13A:		
Langola, terrace	85	Dense layer Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
Duelm	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Hubbard	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D13B:		
Langola, terrace	85	Dense layer Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Hubbard	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Duelm	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D15A:		
Seelyeville, drained	65	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Markey, drained	25	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D15A:		
Mineral soil, drained	10	Excessive permeability Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
D16A:		
Seelyeville, ponded	45	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Markey, ponded	45	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Mineral soil, ponded	10	Excessive permeability Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
D17A:		
Duelm	90	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Isan	8	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
Hubbard	2	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D18B:		
Braham, terrace	85	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Duelm	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D19A:		
Fordum, frequently flooded	65	Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D19A:		
Winterfield, frequently flooded	25	Flooding Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Fordum, occasionally flooded	10	Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
D20A:		
Isan	85	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
Isan, depressional	10	Excessive permeability Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Duelm	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
D21A:		
Isan, depressional	85	Excessive permeability Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Isan	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
D23A:		
Southhaven	90	Excessive permeability Potential for ground-water contamination
Dorset	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Mosford	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D24A:		
Sedgeville, occasionally flooded	85	Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Elkriver, occasionally flooded	15	Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
D25A:		
Soderville, terrace	90	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
Forada	10	Excessive permeability Potential for ground-water contamination Wet soil moisture status Wind erosion
D26A:		
Foldahl, MAP >25	90	Excessive permeability Potential for ground-water contamination Wind erosion
Hubbard	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Isan	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
D27A:		
Dorset, loamy substratum	80	Excessive permeability Potential for ground-water contamination Wind erosion
Dorset	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Southhaven	5	Excessive permeability Potential for ground-water contamination
D28B:		
Urban land	75	Not applicable
Bygland, MAP >25	20	Potential for ground-water contamination Potential for surface-water contamination Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D28B:		
Bygland, sandy substratum	5	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
D29B:		
Urban land	70	Not applicable
Hubbard, bedrock substratum	20	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Hubbard	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Mosford	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Water erosion Wind erosion
D30A:		
Seelyeville, surface drained	45	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Markey, surface drained	45	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Mineral soil, surface drained	10	Excessive permeability Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
D31A:		
Urban land	70	Not applicable
Duelm	20	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Hubbard	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D31A:		
Isan	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
D33B:		
Urban land	70	Not applicable
Dorset	20	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Verndale, acid substratum	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Hubbard	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wind erosion
D33C:		
Urban land	70	Not applicable
Dorset	20	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Verndale, acid substratum	5	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Hubbard	5	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
D34B:		
Urban land	75	Not applicable
Hubbard	20	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D34B:		
Mosford	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Water erosion Wind erosion
D35A:		
Elkriver, occasionally flooded	70	Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Fordum, occasionally flooded	20	Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Udipsamments	5	Not applicable
Winterfield, occasionally flooded	5	Flooding Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
D37F:		
Dorset, bedrock substratum	70	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Rock outcrop	20	Not applicable
Hubbard, bedrock substratum	10	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
D40A:		
Kratka, thick solum	80	Excessive permeability Potential for ground-water contamination Wet soil moisture status Wind erosion
Duelm	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D40A:		
Foldahl, MAP >25	10	Excessive permeability Potential for ground-water contamination Wind erosion
D41C:		
Urban land	75	Not applicable
Waukon	20	Slope Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Braham	5	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
D43A:		
Gonvick, terrace	85	Potential for ground-water contamination Wet soil moisture status
Braham	15	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
GP:		
Pits, gravel.		
Udipsamments.		
L2B:		
Malardi	65	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Hawick	25	Excessive permeability Limited available water capacity Potential for ground-water contamination Water erosion Wind erosion
Rasset	5	Excessive permeability Potential for ground-water contamination Wind erosion
Eden Prairie	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L2C:		
Malardi	60	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L2C:		
Hawick	25	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Tomall	10	Excessive permeability Potential for ground-water contamination
Crowfork	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L2D:		
Malardi	55	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Hawick	30	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Tomall	10	Excessive permeability Potential for ground-water contamination
Crowfork	5	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L2E:		
Malardi	55	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Hawick	30	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L2E:		
Tomall	15	Excessive permeability Potential for ground-water contamination
L3A:		
Rasset	90	Excessive permeability Potential for ground-water contamination Wind erosion
Malardi	8	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Eden Prairie	2	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
L3B:		
Rasset	80	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Malardi	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Eden Prairie	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L3C:		
Rasset	75	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Malardi	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Tomall	10	Excessive permeability Potential for ground-water contamination
Eden Prairie	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L4B:		
Crowfork	90	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Eden Prairie	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
L4C:		
Crowfork	90	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Eden Prairie	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
L4D:		
Crowfork	85	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Eden Prairie	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
L6A:		
Biscay	85	Excessive permeability Potential for ground-water contamination Wet soil moisture status
Biscay, depressional	10	Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Mayer	5	Excessive permeability Lime content Potential for ground-water contamination Wet soil moisture status Wind erosion
L7A:		
Biscay, depressional	80	Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Biscay	15	Excessive permeability Potential for ground-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L7A:		
Mayer	5	Excessive permeability Lime content Potential for ground-water contamination Wet soil moisture status Wind erosion
L8A:		
Darfur	95	Potential for ground-water contamination Wet soil moisture status Wind erosion
Dassel	5	Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
L9A:		
Minnetonka	90	Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status
Depressional soil	10	Ponding Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L10B:		
Kasota	80	Excessive permeability Limited available water capacity Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Water erosion
Eden Prairie	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Wet soil in swales	10	Excessive permeability Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status
L11B:		
Grays	90	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Kasota	5	Excessive permeability Limited available water capacity Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L11B:		
Crowfork	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
L12A:		
Muskego, frequently flooded	30	Flooding High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Blue Earth, frequently flooded	30	Flooding High content of organic matter Lime content Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Houghton, frequently flooded	30	Flooding High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Oshawa, frequently flooded	10	Flooding Lime content Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L13A:		
Klossner, drained	80	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Mineral soil, drained	15	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Houghton, drained	5	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
L14A:		
Houghton, drained	80	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L14A:		
Klossner, drained	10	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Mineral soil, drained	10	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L15A:		
Klossner, ponded	30	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Okoboji, ponded	30	Ponding Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Glencoe, ponded	30	Ponding Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Houghton, ponded	10	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L16A:		
Muskego, ponded	30	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Blue Earth, ponded	30	High content of organic matter Lime content Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Houghton, ponded	30	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Klossner, ponded	10	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L17B:		
Angus	50	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Malardi	30	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Moon	10	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Cordova	10	Potential for ground-water contamination Wet soil moisture status
L18A:		
Shields	85	Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Lerdal	10	Acid soil Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Mazaska	5	Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status
L19B:		
Moon	85	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Finchford	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
L20B:		
Fedji, silty substratum	85	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Finchford	15	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
L21A:		
Canisteo	80	Lime content Potential for ground-water contamination Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L21A:		
Cordova	15	Potential for ground-water contamination Wet soil moisture status
Glencoe	5	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L22C2:		
Lester, eroded	70	Potential for surface-water contamination Previously eroded Water erosion
Angus	15	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Terril	12	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Hamel	3	Potential for ground-water contamination Previously eroded Wet soil moisture status
L22D2:		
Lester, eroded	80	Slope Potential for surface-water contamination Previously eroded Water erosion
Terril	10	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Hamel	5	Potential for ground-water contamination Previously eroded Wet soil moisture status
Ridgeton	5	Potential for surface-water contamination Previously eroded Water erosion
L22E:		
Lester, morainic	75	Slope Potential for surface-water contamination Water erosion
Terril	15	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Hamel	5	Potential for ground-water contamination Wet soil moisture status
Ridgeton	5	Slope Potential for surface-water contamination Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L22F:		
Lester, morainic	75	Slope Potential for surface-water contamination Water erosion
Terril	10	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Ridgeton	10	Slope Potential for surface-water contamination Water erosion
Hamel	5	Potential for ground-water contamination Wet soil moisture status
L23A:		
Cordova	85	Potential for ground-water contamination Wet soil moisture status
Glencoe	10	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Nessel	5	Potential for ground-water contamination
L24A:		
Glencoe, depressional	90	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Cordova	10	Potential for ground-water contamination Wet soil moisture status
L25A:		
Le Sueur	80	Potential for ground-water contamination Wet soil moisture status
Cordova	15	Potential for ground-water contamination Wet soil moisture status
Angus	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion
L26A:		
Shorewood	85	Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Minnetonka	10	Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status
Good Thunder	5	Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L26B:		
Shorewood	90	Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
Good Thunder	5	Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Minnetonka	5	Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status
L26C2:		
Shorewood, eroded	95	Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wet soil moisture status
Minnetonka	5	Potential poor tilth and compaction Potential for ground-water contamination Previously eroded Wet soil moisture status
L27A:		
Suckercreek, frequently flooded	85	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Suckercreek, occasionally flooded	10	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Hanlon, occasionally flooded	5	Flooding Potential for ground-water contamination Potential for surface-water contamination
L28A:		
Suckercreek, occasionally flooded	80	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Suckercreek, frequently flooded	10	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L28A:		
Hanlon, occasionally flooded	10	Flooding Potential for ground-water contamination Potential for surface-water contamination Wind erosion
L29A:		
Hanlon, occasionally flooded	80	Flooding Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Suckercreek, occasionally flooded	10	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Suckercreek, frequently flooded	10	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L30A:		
Medo, surface drained	65	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Medo, drained	20	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Mineral soil, drained	15	Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
L31A:		
Medo, ponded	30	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Dassel, ponded	30	Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L31A:		
Biscay, ponded	30	Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Houghton, ponded	5	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Muskego, ponded	5	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L32D:		
Hawick	75	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Crowfork	15	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Tomall	10	Excessive permeability Potential for ground-water contamination
L32F:		
Hawick	75	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Crowfork	15	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Tomall	10	Excessive permeability Potential for ground-water contamination
L35A:		
Lerdal	80	Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L35A:		
Mazaska	10	Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status
Cordova	5	Potential for ground-water contamination Wet soil moisture status
Le Sueur	5	Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L36A:		
Hamel, overwash	50	Potential for ground-water contamination Water erosion Wet soil moisture status
Hamel	43	Potential for ground-water contamination Wet soil moisture status
Terril	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Glencoe	2	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L37B:		
Angus, morainic	80	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Angus, eroded	10	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Le Sueur	5	Potential for ground-water contamination Wet soil moisture status
Cordova	5	Potential for ground-water contamination Wet soil moisture status
L38A:		
Rushriver, occasionally flooded	75	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Oshawa, frequently flooded	15	Flooding Lime content Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L38A:		
Minneiska, occasionally flooded	5	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Algansee, occasionally flooded	5	Flooding Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
L39A:		
Minneiska, occasionally flooded	70	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Rushriver, occasionally flooded	15	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Oshawa, frequently flooded	10	Flooding Lime content Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Algansee, occasionally flooded	5	Flooding Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
L40B:		
Angus	45	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Kilkenny	40	Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
Lerdal	10	Acid soil Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L40B:		
Mazaska	5	Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status
L41C2:		
Lester, eroded	45	Potential for surface-water contamination Previously eroded Water erosion
Kilkenny, eroded	40	Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Terril	10	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Derrynane	5	Potential poor tilth and compaction Potential for ground-water contamination Previously eroded Wet soil moisture status
L41D2:		
Lester, eroded	45	Slope Potential for surface-water contamination Previously eroded Water erosion
Kilkenny, eroded	35	Slope Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Terril	10	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Derrynane	5	Potential poor tilth and compaction Potential for ground-water contamination Previously eroded Wet soil moisture status
Ridgeton	5	Potential for surface-water contamination Previously eroded Water erosion
L41E:		
Lester	45	Slope Potential for surface-water contamination Water erosion
Kilkenny	40	Slope Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L41E:		
Terril	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Derrynane	5	Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status
Ridgeton	5	Slope Potential for surface-water contamination Water erosion
L41F:		
Lester	45	Slope Potential for surface-water contamination Water erosion
Kilkenny	35	Slope Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Water erosion
Ridgeton	10	Slope Potential for surface-water contamination Water erosion
Terril	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Derrynane	5	Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status
L42B:		
Kingsley	70	Potential for surface-water contamination Water erosion Wind erosion
Gotham	25	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
Grays	5	Potential for ground-water contamination Water erosion Wind erosion
L42C:		
Kingsley	70	Potential for surface-water contamination Water erosion Wind erosion
Gotham	25	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L42C:		
Grays	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L42D:		
Kingsley	70	Slope Potential for surface-water contamination Water erosion Wind erosion
Gotham	25	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Grays	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L42E:		
Kingsley	70	Slope Potential for surface-water contamination Water erosion Wind erosion
Gotham	25	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Grays	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L42F:		
Kingsley	70	Slope Potential for surface-water contamination Water erosion Wind erosion
Gotham	25	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Grays	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L43A:		
Brouillett, occasionally flooded	80	Flooding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Minneiska, occasionally flooded	10	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Rushriver, occasionally flooded	10	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
L44A:		
Nessel	85	Potential for ground-water contamination
Cordova	10	Potential for ground-water contamination Wet soil moisture status
Angus	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion
L45A:		
Dundas	65	Potential for ground-water contamination Wet soil moisture status
Cordova	25	Potential for ground-water contamination Wet soil moisture status
Nessel	5	Potential for ground-water contamination Potential for surface-water contamination
Glencoe	5	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L46A:		
Tomall	80	Excessive permeability Potential for ground-water contamination
Rasset	10	Excessive permeability Potential for ground-water contamination Wind erosion
Malardi	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L47A:		
Eden Prairie	85	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Malardi	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Rasset	5	Excessive permeability Potential for ground-water contamination Wind erosion
L47B:		
Eden Prairie	80	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Malardi	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Rasset	10	Excessive permeability Potential for ground-water contamination Wind erosion
L47C:		
Eden Prairie	70	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Malardi	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Rasset	10	Excessive permeability Potential for ground-water contamination Wind erosion
Hawick	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L49A:		
Klossner, surface drained	65	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Klossner, drained	20	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Mineral soil, drained	15	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L50A:		
Houghton, surface drained	40	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Muskego, surface drained	40	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Klossner, drained	10	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Mineral soil, drained	10	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L52C:		
Urban land	75	Not applicable
Lester	20	Slope Potential for surface-water contamination Water erosion
Kingsley	5	Slope Potential for surface-water contamination Water erosion Wind erosion
L52E:		
Urban land	75	Not applicable
Lester	20	Slope Potential for surface-water contamination Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L52E:		
Kingsley	5	Slope Potential for surface-water contamination Water erosion Wind erosion
L53B:		
Urban land	70	Not applicable
Moon	20	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Lester	10	Potential for surface-water contamination Water erosion
L54A:		
Urban land	70	Not applicable
Dundas	20	Potential for ground-water contamination Wet soil moisture status
Nessel	10	Potential for ground-water contamination
L55B:		
Urban land	70	Not applicable
Malardi	20	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Rasset	5	Excessive permeability Potential for ground-water contamination Wind erosion
Eden Prairie	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L55C:		
Urban land	70	Not applicable
Malardi	20	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Hawick	5	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L55C:		
Crowfork	5	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L56A:		
Muskego, frequently flooded	45	Flooding High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Klossner, frequently flooded	45	Flooding High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Suckercreek, frequently flooded	10	Flooding Lime content Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L58B:		
Koronis	60	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Kingsley	25	Potential for surface-water contamination Water erosion Wind erosion
Forestcity	10	Potential for ground-water contamination Wet soil moisture status Wind erosion
Gotham	5	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
L58C2:		
Koronis, eroded	55	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Kingsley, eroded	25	Potential for surface-water contamination Previously eroded Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L58C2:		
Forestcity	15	Potential for ground-water contamination Previously eroded Wet soil moisture status Wind erosion
Gotham	5	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
L58D2:		
Koronis, eroded	55	Slope Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Kingsley, eroded	25	Slope Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Forestcity	15	Potential for ground-water contamination Previously eroded Wet soil moisture status Wind erosion
Gotham	5	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
L58E:		
Koronis	55	Slope Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Kingsley	25	Slope Potential for surface-water contamination Water erosion Wind erosion
Forestcity	15	Potential for ground-water contamination Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L58E:		
Gotham	5	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L59A:		
Forestcity	70	Potential for ground-water contamination Wet soil moisture status Wind erosion
Lundlake, depressional	25	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Marcellon	5	Potential for ground-water contamination Wet soil moisture status
L60B:		
Angus	65	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Moon	30	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Hamel	5	Potential for ground-water contamination Wet soil moisture status
L61C2:		
Lester, eroded	60	Potential for surface-water contamination Previously eroded Water erosion
Metea, eroded	25	Excessive permeability Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Terril	12	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Hamel	3	Potential for ground-water contamination Previously eroded Wet soil moisture status
L61D2:		
Lester, eroded	55	Slope Potential for surface-water contamination Previously eroded Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L61D2:		
Metea, eroded	25	Slope Excessive permeability Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Terril	12	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Ridgeton	5	Potential for surface-water contamination Previously eroded Water erosion
Hamel	3	Potential for ground-water contamination Previously eroded Wet soil moisture status
L61E:		
Lester	55	Slope Potential for surface-water contamination Water erosion
Metea	25	Slope Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Terril	10	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Hamel	5	Potential for ground-water contamination Wet soil moisture status
Ridgeton	5	Slope Potential for surface-water contamination Water erosion
L62B:		
Koronis	55	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Kingsley	20	Potential for surface-water contamination Water erosion Wind erosion
Malardi	20	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L62B:		
Forestcity	5	Potential for ground-water contamination Wet soil moisture status Wind erosion
L62C2:		
Koronis, eroded	40	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Kingsley, eroded	25	Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Malardi, eroded	25	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Forestcity	10	Potential for ground-water contamination Previously eroded Wet soil moisture status Wind erosion
L62D2:		
Koronis, eroded	40	Slope Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Kingsley, eroded	25	Slope Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Malardi, eroded	25	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Forestcity	10	Potential for ground-water contamination Previously eroded Wet soil moisture status Wind erosion
L62E:		
Koronis	40	Slope Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L62E:		
Kingsley	25	Slope Potential for surface-water contamination Water erosion Wind erosion
Malardi	25	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Forestcity	10	Potential for ground-water contamination Wet soil moisture status Wind erosion
L64A:		
Tadkee	50	Excessive permeability Potential for ground-water contamination Wet soil moisture status Wind erosion
Tadkee, depressional	36	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Better drained soil	8	Excessive permeability Potential for ground-water contamination Wet soil moisture status Wind erosion
Granby	4	Excessive permeability Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Less sandy soil	2	Excessive permeability Lime content Potential for ground-water contamination Wet soil moisture status Wind erosion
L70C2:		
Lester, eroded	60	Potential for surface-water contamination Previously eroded Water erosion
Malardi, eroded	25	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L70C2:		
Terril	12	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Hamel	3	Potential for ground-water contamination Previously eroded Wet soil moisture status
L70D2:		
Lester, eroded	55	Slope Potential for surface-water contamination Previously eroded Water erosion
Malardi, eroded	25	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Terril	12	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Ridgeton	5	Potential for surface-water contamination Previously eroded Water erosion
Hamel	3	Potential for ground-water contamination Previously eroded Wet soil moisture status
L70E:		
Lester	55	Slope Potential for surface-water contamination Water erosion
Malardi	25	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Terril	10	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Hamel	5	Potential for ground-water contamination Wet soil moisture status
Ridgeton	5	Slope Potential for surface-water contamination Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L71C:		
Metea	80	Excessive permeability Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Lester	15	Potential for surface-water contamination Water erosion
Moon	5	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
L72A:		
Lundlake, depressional	90	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Forestcity	10	Potential for ground-water contamination Wet soil moisture status Wind erosion
L110E:		
Lester	50	Slope Potential for surface-water contamination Water erosion
Ridgeton	30	Slope Potential for surface-water contamination Water erosion
Cokato	10	Slope Potential for surface-water contamination Water erosion
Belview	6	Slope Lime content Potential for surface-water contamination Water erosion Wind erosion
Hamel	2	Potential for ground-water contamination Water erosion Wet soil moisture status
Terril	2	Potential for ground-water contamination Potential for surface-water contamination Water erosion
L110F:		
Lester	55	Slope Potential for surface-water contamination Water erosion
Ridgeton	30	Slope Potential for surface-water contamination Water erosion
Cokato	8	Slope Potential for surface-water contamination Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
L110F:		
Belview	4	Slope Lime content Potential for surface-water contamination Water erosion Wind erosion
Terril	2	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Hamel	1	Potential for ground-water contamination Water erosion Wet soil moisture status
L131A:		
Litchfield	85	Excessive permeability Potential for ground-water contamination Wet soil moisture status Wind erosion
Darfur	10	Potential for ground-water contamination Wet soil moisture status Wind erosion
Crowfork	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
L132A:		
Hamel	50	Potential for ground-water contamination Wet soil moisture status
Glencoe, depressional	30	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Hamel, overwash	15	Potential for ground-water contamination Water erosion Wet soil moisture status
Terril	5	Potential for ground-water contamination Potential for surface-water contamination Water erosion
M-W.		
Water, miscellaneous		
U1A:		
Urban land.		
Udorthents, wet substratum.		
U2A.		
Udorthents, wet substratum		
U3B.		
Udorthents (cut and fill land)		

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
U4A:		
Urban land.		
Udipsamments (cut and fill land).		
U5A:		
Urban land.		
Udorthents, wet substratum.		
U6B:		
Urban land.		
Udorthents (cut and fill land).		
W.		
Water		

Table 7a.--Land Capability and Yields per Acre of Crops

(Yields in the "N" columns are for nonirrigated areas; those in the "I" columns are for irrigated areas. Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and component name	Pct. of map unit	Land capability		Alfalfa hay		Corn		Oats	
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
D1B				3.0	8.0	73	172	58	---
Anoka, terrace	55	4s	---						
Zimmerman, terrace	40	4s	---						
Kost	5	4s	---						
D1C				2.5	7.0	61	168	48	---
Anoka, terrace	45	6s	---						
Zimmerman, terrace	45	6s	---						
Kost	10	6s	---						
D2A				4.0	---	120	---	72	---
Elkriver, rarely flooded	85	2s	---						
Mosford, rarely flooded	10	3e	---						
Elkriver, occasionally flooded	5	2w	---						
D3A				3.9	---	115	---	71	---
Elkriver, occasionally flooded	80	2w	---						
Fordum, frequently flooded	15	6w	---						
Winterfield, occasionally flooded	5	4w	---						
D4A				3.0	---	85	---	55	---
Dorset	90	3s	---						
Verndale, acid substratum	8	3s	---						
Almora	2	2s	---						
D4B				3.0	---	82	---	56	---
Dorset	85	3s	---						
Verndale, acid substratum	10	3s	---						
Almora	5	2s	---						
D4C				2.9	---	72	---	52	---
Dorset	75	4e	---						
Verndale, acid substratum	15	3s	---						
Almora	10	2s	---						
D5B				3.0	---	80	---	55	---
Dorset	65	3s	---						
Two Inlets	25	4s	---						
Verndale, acid substratum	5	3s	---						
Southhaven	5	1	---						
D5C				2.7	---	72	---	51	---
Dorset	55	4e	---						
Two Inlets	30	4s	---						
Southhaven	10	1	---						
Verndale, acid substratum	5	4e	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Alfalfa hay N	Alfalfa hay I	Corn N	Corn I	Oats N	Oats I
				Tons	Tons	Bu	Bu	Bu	Bu
D5D				2.5	---	60	---	42	---
Dorset	50	6e	---						
Two Inlets	35	6s	---						
Southhaven	10	1	---						
Verndale, acid substratum	5	4e	---						
D6A				3.2	8.0	89	175	61	---
Verndale, acid substratum	90	3s	---						
Dorset	7	3s	---						
Hubbard	3	4s	---						
D6B				3.2	8.0	84	175	59	---
Verndale, acid substratum	85	3s	---						
Dorset	10	3s	---						
Hubbard	5	4s	---						
D6C				2.9	7.0	77	168	53	---
Verndale, acid substratum	80	4e	---						
Dorset	15	4e	---						
Hubbard	5	6s	---						
D7A				3.0	---	75	172	55	---
Hubbard	95	4s	---						
Mosford	5	3s	---						
D7B				3.0	---	75	172	55	---
Hubbard	90	4s	---						
Mosford	10	3s	---						
D7C				2.5	---	65	168	49	---
Hubbard	80	6s	---						
Sandberg	10	6s	---						
Mosford	10	3s	---						
D8B				2.8	---	60	172	55	---
Sandberg	95	4s	---						
Arvilla, MAP >25	5	3s	---						
D8C				2.5	---	54	168	48	---
Sandberg	80	6s	---						
Corliss	15	6s	---						
Southhaven	5	1	---						
D8D				2.5	---	---	---	---	---
Sandberg	80	6s	---						
Corliss	10	6s	---						
Southhaven	10	1	---						
D8E				---	---	---	---	---	---
Sandberg	80	7s	---						
Corliss	10	7s	---						
Southhaven	10	1	---						
D10A				---	---	115	---	67	---
Forada	95	2w	---						
Depressional soil	5	6w	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Alfalfa hay N	Alfalfa hay I	Corn N	Corn I	Oats N	Oats I
				Tons	Tons	Bu	Bu	Bu	Bu
D11A				---	---	143	---	81	---
Lindaas	80	2w	---						
Lindaas, sandy substratum	10	2w	---						
Depressional soil	10	6w	---						
D12B				4.0	---	144	---	79	---
Bygland, MAP >25	70	2e	---						
Bygland, sandy substratum	15	2e	---						
Lindaas	10	2w	---						
Depressional soil	5	6w	---						
D12C2				4.0	---	131	---	75	---
Bygland, MAP >25	70	3e	---						
Bygland, sandy substratum	15	3e	---						
Lindaas	10	2w	---						
Depressional soil	5	6w	---						
D13A				3.0	8.0	104	170	57	---
Langola, terrace	85	3s	---						
Duelm	10	4s	---						
Hubbard	5	4s	---						
D13B				2.9	8.0	96	170	55	---
Langola, terrace	85	3s	---						
Hubbard	10	4s	---						
Duelm	5	4s	---						
D15A				---	---	114	---	68	---
Seelyeville, drained	65	3w	---						
Markey, drained	25	3w	---						
Mineral soil, drained	10	3w	---						
D16A				---	---	---	---	---	---
Seelyeville, ponded	45	8w	---						
Markey, ponded	45	8w	---						
Mineral soil, ponded	10	8w	---						
D17A				3.0	8.0	69	170	56	---
Duelm	90	4s	---						
Isan	8	3w	---						
Hubbard	2	4s	---						
D18B				3.4	---	95	---	69	---
Braham, terrace	85	3s	---						
Duelm	15	4s	---						
D19A				---	---	---	---	---	---
Fordum, frequently flooded	65	6w	---						
Winterfield, frequently flooded	25	4w	---						
Fordum, occasionally flooded	10	4w	---						
D20A				---	---	65	---	50	---
Isan	85	3w	---						
Isan, depressional	10	6w	---						
Duelm	5	4s	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Alfalfa hay		Corn		Oats	
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
D21A				---	---	---	---	---	---
Isan, depressional	85	6w	---						
Isan	15	3w	---						
D23A				3.7	8.0	147	180	86	---
Southhaven	90	1	---						
Dorset	5	3s	---						
Mosford	5	3s	---						
D24A				---	---	115	---	71	---
Sedgeville, occasionally flooded	85	2w	---						
Elkriver, occasionally flooded	15	2w	---						
D25A				3.0	---	88	---	56	---
Soderville, terrace	90	3s	---						
Forada	10	2w	---						
D26A				3.4	---	97	---	70	---
Foldahl, MAP >25	90	3s	---						
Hubbard	5	4s	---						
Isan	5	3w	---						
D27A				3.2	---	100	---	64	---
Dorset, loamy substratum	80	3s	---						
Dorset	15	3s	---						
Southhaven	5	1	---						
D28B				---	---	---	---	---	---
Urban land	75	---	---						
Bygland, MAP >25	20	2e	---						
Bygland, sandy substratum	5	2e	---						
D29B				---	---	---	---	---	---
Urban land	70	---	---						
Hubbard, bedrock substratum	20	4s	---						
Hubbard	5	4s	---						
Mosford	5	3s	---						
D30A				---	---	---	---	---	---
Seelyeville, surface drained	45	6w	---						
Markey, surface drained	45	6w	---						
Mineral soil, surface drained	10	6w	---						
D31A				---	---	---	---	---	---
Urban land	70	---	---						
Duelm	20	4s	---						
Hubbard	5	4s	---						
Isan	5	3w	---						
D33B				---	---	---	---	---	---
Urban land	70	---	---						
Dorset	20	3s	---						
Verndale, acid substratum	5	3s	---						
Hubbard	5	4s	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Alfalfa hay N	Alfalfa hay I	Corn N	Corn I	Oats N	Oats I
				Tons	Tons	Bu	Bu	Bu	Bu
D33C				---	---	---	---	---	---
Urban land	70	---	---						
Dorset	20	4e	---						
Verndale, acid substratum	5	4e	---						
Hubbard	5	6s	---						
D34B				---	---	---	---	---	---
Urban land	75	---	---						
Hubbard	20	4s	---						
Mosford	5	3s	---						
D35A				---	---	---	---	---	---
Elkriver, occasionally flooded	70	2w	---						
Fordum, occasionally flooded	20	6w	---						
Udipsamments	5	---	---						
Winterfield, occasionally flooded	5	4w	---						
D37F				---	---	---	---	---	---
Dorset, bedrock substratum	70	8s	---						
Rock outcrop	20	---	---						
Hubbard, bedrock substratum	10	8s	---						
D40A				---	---	85	---	56	---
Kratka, thick solum	80	3w	---						
Duelm	10	4s	---						
Foldahl, MAP >25	10	3s	---						
D41C				---	---	---	---	---	---
Urban land	75	---	---						
Waukon	20	3e	---						
Braham	5	3s	---						
D43A				4.3	---	151	---	84	---
Gonvick, terrace	85	1	---						
Braham	15	3s	---						
GP.									
Pits, gravel-Udipsamments									
L2B				2.9	---	80	---	52	---
Malardi	65	3s	---						
Hawick	25	4s	---						
Rasset	5	2e	---						
Eden Prairie	5	3s	---						
L2C				2.8	---	78	---	52	---
Malardi	60	4e	---						
Hawick	25	4s	---						
Tomall	10	2e	---						
Crowfork	5	4s	---						
L2D				2.5	---	69	---	45	---
Malardi	55	6e	---						
Hawick	30	6e	---						
Tomall	10	2e	---						
Crowfork	5	6s	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Alfalfa hay		Corn		Oats	
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
L2E				---	---	---	---	---	---
Malardi	55	7e	---						
Hawick	30	7e	---						
Tomall	15	2e	---						
L3A				3.4	---	117	---	64	---
Rasset	90	2s	---						
Malardi	8	3s	---						
Eden Prairie	2	3s	---						
L3B				3.4	---	109	---	58	---
Rasset	80	2e	---						
Malardi	15	3s	---						
Eden Prairie	5	3s	---						
L3C				3.0	---	101	---	54	---
Rasset	75	3e	---						
Malardi	10	4e	---						
Tomall	10	2e	---						
Eden Prairie	5	4e	---						
L4B				3.0	---	89	---	52	---
Crowfork	90	4s	---						
Eden Prairie	10	3s	---						
L4C				2.7	---	75	---	45	---
Crowfork	90	4s	---						
Eden Prairie	10	4e	---						
L4D				2.5	---	65	---	40	---
Crowfork	85	6s	---						
Eden Prairie	15	6e	---						
L6A				---	---	125	---	75	---
Biscay	85	2w	---						
Biscay, depressional	10	6w	---						
Mayer	5	2w	---						
L7A				---	---	---	---	---	---
Biscay, depressional	80	6w	---						
Biscay	15	2w	---						
Mayer	5	2w	---						
L8A				---	---	130	---	75	---
Darfur	95	2w	---						
Dassel	5	5w	---						
L9A				---	---	140	---	80	---
Minnetonka	90	2w	---						
Depressional soil	10	6w	---						
L10B				3.7	---	122	---	60	---
Kasota	80	2e	---						
Eden Prairie	10	3s	---						
Wet soil in swales	10	2w	---						
L11B				3.9	---	145	---	77	---
Grays	90	2e	---						
Kasota	5	2e	---						
Crowfork	5	4s	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Alfalfa hay		Corn		Oats	
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
L12A				---	---	---	---	---	---
Muskego, frequently flooded	30	8w	---						
Blue Earth, frequently flooded	30	8w	---						
Houghton, frequently flooded	30	8w	---						
Oshawa, frequently flooded	10	8w	---						
L13A				---	---	120	---	76	---
Klossner, drained	80	3w	---						
Mineral soil, drained	15	3w	---						
Houghton, drained	5	3w	---						
L14A				---	---	120	---	79	---
Houghton, drained	80	3w	---						
Klossner, drained	10	3w	---						
Mineral soil, drained	10	3w	---						
L15A				---	---	---	---	---	---
Klossner, ponded	30	8w	---						
Okoboji, ponded	30	8w	---						
Glencoe, ponded	30	8w	---						
Houghton, ponded	10	8w	---						
L16A				---	---	---	---	---	---
Muskego, ponded	30	8w	---						
Blue Earth, ponded	30	8w	---						
Houghton, ponded	30	8w	---						
Klossner, ponded	10	8w	---						
L17B				3.9	---	128	---	76	---
Angus	50	2e	---						
Malardi	30	3s	---						
Moon	10	3s	---						
Cordova	10	2w	---						
L18A				---	---	145	---	80	---
Shields	85	2w	---						
Lerdal	10	2e	---						
Mazaska	5	2w	---						
L19B				3.4	---	96	---	69	---
Moon	85	3s	---						
Finchford	15	4s	---						
L20B				3.4	---	109	---	69	---
Fedji, silty substratum	85	3s	---						
Finchford	15	4s	---						
L21A				---	---	149	---	83	---
Canisteo	80	2w	---						
Cordova	15	2w	---						
Glencoe	5	6w	---						
L22C2				4.0	---	134	---	75	---
Lester, eroded	70	3e	---						
Angus	15	2e	---						
Terril	12	2e	---						
Hamel	3	2w	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Alfalfa hay		Corn		Oats	
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
L22D2				3.2	---	101	---	64	---
Lester, eroded	80	4e	---						
Terril	10	2e	---						
Hamel	5	2w	---						
Ridgeton	5	3e	---						
L22E				---	---	---	---	---	---
Lester, morainic	75	6e	---						
Terril	15	2e	---						
Hamel	5	2w	---						
Ridgeton	5	4e	---						
L22F				---	---	---	---	---	---
Lester, morainic	75	7e	---						
Terril	10	2e	---						
Ridgeton	10	6e	---						
Hamel	5	2w	---						
L23A				---	---	155	---	90	---
Cordova	85	2w	---						
Glencoe	10	6w	---						
Nessel	5	1	---						
L24A				---	---	141	---	79	---
Glencoe, depressional	90	3w	---						
Cordova	10	2w	---						
L25A				4.5	---	159	---	90	---
Le Sueur	80	1	---						
Cordova	15	2w	---						
Angus	5	2e	---						
L26A				4.0	---	148	---	86	---
Shorewood	85	1	---						
Minnetonka	10	2w	---						
Good Thunder	5	2w	---						
L26B				4.0	---	144	---	84	---
Shorewood	90	2e	---						
Good Thunder	5	2w	---						
Minnetonka	5	2w	---						
L26C2				3.9	---	125	---	75	---
Shorewood, eroded	95	3e	---						
Minnetonka	5	2w	---						
L27A				---	---	---	---	---	---
Suckercreek, frequently flooded	85	5w	---						
Suckercreek, occasionally flooded	10	4w	---						
Hanlon, occasionally flooded	5	2s	---						
L28A				---	---	121	---	79	---
Suckercreek, occasionally flooded	80	4w	---						
Suckercreek, frequently flooded	10	5w	---						
Hanlon, occasionally flooded	10	2s	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Alfalfa hay N	Alfalfa hay I	Corn N	Corn I	Oats N	Oats I
				Tons	Tons	Bu	Bu	Bu	Bu
L29A				4.0	---	128	---	77	---
Hanlon, occasionally flooded	80	2s	---						
Suckercreek, occasionally flooded	10	4w	---						
Suckercreek, frequently flooded	10	5w	---						
L30A				---	---	---	---	---	---
Medo, surface drained	65	6w	---						
Medo, drained	20	3w	---						
Mineral soil, drained	15	3w	---						
L31A				---	---	---	---	---	---
Medo, ponded	30	8w	---						
Dassel, ponded	30	8w	---						
Biscay, ponded	30	8w	---						
Houghton, ponded	5	8w	---						
Muskego, ponded	5	8w	---						
L32D				---	---	---	---	---	---
Hawick	75	7s	---						
Crowfork	15	7s	---						
Tomall	10	2e	---						
L32F				---	---	---	---	---	---
Hawick	75	8s	---						
Crowfork	15	8s	---						
Tomall	10	2e	---						
L35A				4.0	---	150	---	85	---
Lerdal	80	2e	---						
Mazaska	10	2w	---						
Cordova	5	2w	---						
Le Sueur	5	1	---						
L36A				---	---	153	---	87	---
Hamel, overwash	50	2w	---						
Hamel	43	2w	---						
Terril	5	2e	---						
Glencoe	2	3w	---						
L37B				4.5	---	154	---	89	---
Angus, morainic	80	2e	---						
Angus, eroded	10	2e	---						
Le Sueur	5	1	---						
Cordova	5	2w	---						
L38A				---	---	130	---	75	---
Rushriver, occasionally flooded	75	2w	---						
Oshawa, frequently flooded	15	6w	---						
Minneiska, occasionally flooded	5	2s	---						
Algansee, occasionally flooded	5	4w	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Alfalfa hay N	Alfalfa hay I	Corn N	Corn I	Oats N	Oats I
				Tons	Tons	Bu	Bu	Bu	Bu
L39A				---	---	134	---	80	---
Minneiska, occasionally flooded	70	2s	---						
Rushriver, occasionally flooded	15	2w	---						
Oshawa, frequently flooded	10	6w	---						
Algansee, occasionally flooded	5	4w	---						
L40B				4.4	---	144	---	84	---
Angus	45	2e	---						
Kilkenny	40	2e	---						
Lerdal	10	2e	---						
Mazaska	5	2w	---						
L41C2				3.9	---	128	---	70	---
Lester, eroded	45	3e	---						
Kilkenny, eroded	40	3e	---						
Terril	10	2e	---						
Derrynane	5	2w	---						
L41D2				3.2	---	100	---	64	---
Lester, eroded	45	4e	---						
Kilkenny, eroded	35	4e	---						
Terril	10	2e	---						
Derrynane	5	2w	---						
Ridgeton	5	3e	---						
L41E				---	---	---	---	---	---
Lester	45	6e	---						
Kilkenny	40	6e	---						
Terril	5	2e	---						
Derrynane	5	2w	---						
Ridgeton	5	4e	---						
L41F				---	---	---	---	---	---
Lester	45	7e	---						
Kilkenny	35	7e	---						
Ridgeton	10	6e	---						
Terril	5	2e	---						
Derrynane	5	2w	---						
L42B				3.7	---	115	---	64	---
Kingsley	70	2e	---						
Gotham	25	4s	---						
Grays	5	2e	---						
L42C				3.5	---	108	---	60	---
Kingsley	70	3e	---						
Gotham	25	6s	---						
Grays	5	2e	---						
L42D				3.0	---	89	---	56	---
Kingsley	70	4e	---						
Gotham	25	6s	---						
Grays	5	2e	---						
L42E				---	---	---	---	---	---
Kingsley	70	6e	---						
Gotham	25	6s	---						
Grays	5	2e	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Alfalfa hay		Corn		Oats	
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
L42F				---	---	---	---	---	---
Kingsley	70	7e	---						
Gotham	25	7s	---						
Grays	5	2e	---						
L43A				---	---	138	---	83	---
Brouillett, occasionally flooded	80	2w	---						
Minneiska, occasionally flooded	10	2s	---						
Rushriver, occasionally flooded	10	2w	---						
L44A				4.5	---	155	---	90	---
Nessel	85	1	---						
Cordova	10	2w	---						
Angus	5	2e	---						
L45A				---	---	151	---	86	---
Dundas	65	2w	---						
Cordova	25	2w	---						
Nessel	5	1	---						
Glencoe	5	6w	---						
L46A				4.0	---	145	---	84	---
Tomall	80	2e	---						
Rasset	10	2s	---						
Malardi	10	3s	---						
L47A				3.2	---	91	---	60	---
Eden Prairie	85	3s	---						
Malardi	10	3s	---						
Rasset	5	2s	---						
L47B				3.0	---	88	---	52	---
Eden Prairie	80	3s	---						
Malardi	10	3s	---						
Rasset	10	2e	---						
L47C				2.8	---	77	---	50	---
Eden Prairie	70	4e	---						
Malardi	10	4e	---						
Rasset	10	2e	---						
Hawick	10	4s	---						
L49A				---	---	---	---	---	---
Klossner, surface drained	65	6w	---						
Klossner, drained	20	3w	---						
Mineral soil, drained	15	3w	---						
L50A				---	---	---	---	---	---
Houghton, surface drained	40	6w	---						
Muskego, surface drained	40	6w	---						
Klossner, drained	10	3w	---						
Mineral soil, drained	10	3w	---						
L52C				---	---	---	---	---	---
Urban land	75	---	---						
Lester	20	6e	---						
Kingsley	5	6e	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Alfalfa hay N	Alfalfa hay I	Corn N	Corn I	Oats N	Oats I
				Tons	Tons	Bu	Bu	Bu	Bu
L52E				---	---	---	---	---	---
Urban land	75	---	---						
Lester	20	7e	---						
Kingsley	5	7e	---						
L53B				---	---	---	---	---	---
Urban land	70	---	---						
Moon	20	3s	---						
Lester	10	3e	---						
L54A				---	---	---	---	---	---
Urban land	70	---	---						
Dundas	20	2w	---						
Nessel	10	1	---						
L55B				---	---	---	---	---	---
Urban land	70	---	---						
Malardi	20	3s	---						
Rasset	5	2e	---						
Eden Prairie	5	3s	---						
L55C				---	---	---	---	---	---
Urban land	70	---	---						
Malardi	20	4e	---						
Hawick	5	4s	---						
Crowfork	5	4s	---						
L56A				---	---	---	---	---	---
Muskego, frequently flooded	45	6w	---						
Klossner, frequently flooded	45	6w	---						
Suckercreek, frequently flooded	10	5w	---						
L58B				4.0	---	136	---	75	---
Koronis	60	2e	---						
Kingsley	25	2e	---						
Forestcity	10	2w	---						
Gotham	5	4s	---						
L58C2				3.7	---	123	---	72	---
Koronis, eroded	55	3e	---						
Kingsley, eroded	25	3e	---						
Forestcity	15	2w	---						
Gotham	5	6s	---						
L58D2				3.3	---	111	---	68	---
Koronis, eroded	55	4e	---						
Kingsley, eroded	25	4e	---						
Forestcity	15	2w	---						
Gotham	5	6s	---						
L58E				---	---	---	---	---	---
Koronis	55	7e	---						
Kingsley	25	7e	---						
Forestcity	15	2w	---						
Gotham	5	6s	---						
L59A				---	---	139	---	77	---
Forestcity	70	2w	---						
Lundlake, depressional	25	3w	---						
Marcellon	5	1	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Alfalfa hay N	Alfalfa hay I	Corn N	Corn I	Oats N	Oats I
				Tons	Tons	Bu	Bu	Bu	Bu
L60B				4.1	---	138	---	84	---
Angus	65	2e	---						
Moon	30	3s	---						
Hamel	5	2w	---						
L61C2				3.7	---	119	---	71	---
Lester, eroded	60	3e	---						
Metea, eroded	25	4e	---						
Terril	12	2e	---						
Hamel	3	2w	---						
L61D2				3.0	---	99	---	66	---
Lester, eroded	55	4e	---						
Metea, eroded	25	6e	---						
Terril	12	2e	---						
Ridgeton	5	3e	---						
Hamel	3	2w	---						
L61E				---	---	---	---	---	---
Lester	55	6e	---						
Metea	25	7e	---						
Terril	10	2e	---						
Hamel	5	2w	---						
Ridgeton	5	4e	---						
L62B				3.9	---	127	---	71	---
Koronis	55	3e	---						
Kingsley	20	3e	---						
Malardi	20	3s	---						
Forestcity	5	2w	---						
L62C2				3.4	---	111	---	66	---
Koronis, eroded	40	3e	---						
Kingsley, eroded	25	3e	---						
Malardi, eroded	25	4e	---						
Forestcity	10	2w	---						
L62D2				3.0	---	100	---	62	---
Koronis, eroded	40	4e	---						
Kingsley, eroded	25	4e	---						
Malardi, eroded	25	4e	---						
Forestcity	10	2w	---						
L62E				---	---	---	---	---	---
Koronis	40	7e	---						
Kingsley	25	7e	---						
Malardi	25	7e	---						
Forestcity	10	2w	---						
L64A				---	---	---	---	---	---
Tadkee	50	3w	---						
Tadkee, depressional	36	6w	---						
Better drained soil	8	3s	---						
Granby	4	5w	---						
Less sandy soil	2	2w	---						
L70C2				3.5	---	116	---	66	---
Lester, eroded	60	3e	---						
Malardi, eroded	25	4e	---						
Terril	12	2e	---						
Hamel	3	2w	---						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Alfalfa hay		Corn		Oats	
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
L70D2				3.0	---	95	---	60	---
Lester, eroded	55	4e	---						
Malardi, eroded	25	6e	---						
Terril	12	2e	---						
Ridgeton	5	3e	---						
Hamel	3	2w	---						
L70E				---	---	---	---	---	---
Lester	55	6e	---						
Malardi	25	7e	---						
Terril	10	2e	---						
Hamel	5	2w	---						
Ridgeton	5	4e	---						
L71C				3.0	---	91	---	66	---
Metea	80	4e	---						
Lester	15	3e	---						
Moon	5	3s	---						
L72A				---	---	135	---	71	---
Lundlake, depressional	90	3w	---						
Forestcity	10	2w	---						
L110E				---	---	---	---	---	---
Lester	50	6e	---						
Ridgeton	30	4e	---						
Cokato	10	6e	---						
Belview	6	6e	---						
Hamel	2	2w	---						
Terril	2	2e	---						
L110F				---	---	---	---	---	---
Lester	55	7e	---						
Ridgeton	30	6e	---						
Cokato	8	7e	---						
Belview	4	7e	---						
Terril	2	2e	---						
Hamel	1	2w	---						
L131A				---	---	102	---	65	---
Litchfield	85	3s	---						
Darfur	10	2w	---						
Crowfork	5	4s	---						
L132A				---	---	148	---	83	---
Hamel	50	2w	---						
Glencoe, depressional	30	3w	---						
Hamel, overwash	15	2w	---						
Terril	5	2e	---						
M-W.									
Water, miscellaneous									
U1A.									
Urban land-Udorthents, wet substratum									
U2A.									
Udorthents, wet substratum									

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Alfalfa hay		Corn		Oats	
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
U3B. Udorthents (cut and fill land)									
U4A. Urban land-Udipsamments (cut and fill land)									
U5A. Urban land-Udorthents, wet substratum									
U6B. Urban land-Udorthents (cut and fill land)									
W. Water									

Table 7b.--Land Capability and Yields per Acre of Crops

(Yields in the "N" columns are for nonirrigated areas; those in the "I" columns are for irrigated areas. Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and component name	Pct. of map unit	Land capability		Irish potatoes		Soybeans		Spring wheat	
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
D1B----------				---	400	26	50	39	---
Anoka, terrace----------	55	4s	---						
Zimmerman, terrace------	40	4s	---						
Kost----------	5	4s	---						
D1C----------				---	380	22	45	33	---
Anoka, terrace----------	45	6s	---						
Zimmerman, terrace------	45	6s	---						
Kost----------	10	6s	---						
D2A----------				---	---	37	---	49	---
Elkriver, rarely flooded	85	2s	---						
Mosford, rarely flooded	10	3e	---						
Elkriver, occasionally flooded----------	5	2w	---						
D3A----------				---	---	35	---	48	---
Elkriver, occasionally flooded----------	80	2w	---						
Fordum, frequently flooded----------	15	6w	---						
Winterfield, occasionally flooded---	5	4w	---						
D4A----------				---	---	28	---	38	---
Dorset----------	90	3s	---						
Verndale, acid substratum----------	8	3s	---						
Almora----------	2	2s	---						
D4B----------				---	---	28	---	38	---
Dorset----------	85	3s	---						
Verndale, acid substratum----------	10	3s	---						
Almora----------	5	2s	---						
D4C----------				---	---	24	---	34	---
Dorset----------	75	4e	---						
Verndale, acid substratum----------	15	3s	---						
Almora----------	10	2s	---						
D5B----------				---	---	27	---	38	---
Dorset----------	65	3s	---						
Two Inlets----------	25	4s	---						
Verndale, acid substratum----------	5	3s	---						
Southhaven----------	5	1	---						
D5C----------				---	---	24	---	34	---
Dorset----------	55	4e	---						
Two Inlets----------	30	4s	---						
Southhaven----------	10	1	---						
Verndale, acid substratum----------	5	4e	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Irish potatoes N	Irish potatoes I	Soybeans N	Soybeans I	Spring wheat N	Spring wheat I
				Cwt	Cwt	Bu	Bu	Bu	Bu
D5D				---	---	22	---	32	---
Dorset	50	6e	---						
Two Inlets	35	6s	---						
Southhaven	10	1	---						
Verndale, acid substratum	5	4e	---						
D6A				---	400	31	50	41	---
Verndale, acid substratum	90	3s	---						
Dorset	7	3s	---						
Hubbard	3	4s	---						
D6B				---	400	27	50	39	---
Verndale, acid substratum	85	3s	---						
Dorset	10	3s	---						
Hubbard	5	4s	---						
D6C				---	390	26	45	34	---
Verndale, acid substratum	80	4e	---						
Dorset	15	4e	---						
Hubbard	5	6s	---						
D7A				---	---	25	50	35	---
Hubbard	95	4s	---						
Mosford	5	3s	---						
D7B				---	---	25	50	35	---
Hubbard	90	4s	---						
Mosford	10	3s	---						
D7C				---	---	23	45	31	---
Hubbard	80	6s	---						
Sandberg	10	6s	---						
Mosford	10	3s	---						
D8B				---	400	22	50	37	---
Sandberg	95	4s	---						
Arvilla, MAP >25	5	3s	---						
D8C				---	380	21	45	31	---
Sandberg	80	6s	---						
Corliss	15	6s	---						
Southhaven	5	1	---						
D8D				---	---	---	---	---	---
Sandberg	80	6s	---						
Corliss	10	6s	---						
Southhaven	10	1	---						
D8E				---	---	---	---	---	---
Sandberg	80	7s	---						
Corliss	10	7s	---						
Southhaven	10	1	---						
D10A				---	---	35	---	45	---
Forada	95	2w	---						
Depressional soil	5	6w	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Irish potatoes		Soybeans		Spring wheat	
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
D11A				---	---	39	---	49	---
Lindaas	80	2w	---						
Lindaas, sandy substratum	10	2w	---						
Depressional soil	10	6w	---						
D12B				---	---	40	---	51	---
Bygland, MAP >25	70	2e	---						
Bygland, sandy substratum	15	2e	---						
Lindaas	10	2w	---						
Depressional soil	5	6w	---						
D12C2				---	---	35	---	45	---
Bygland, MAP >25	70	3e	---						
Bygland, sandy substratum	15	3e	---						
Lindaas	10	2w	---						
Depressional soil	5	6w	---						
D13A				---	---	27	50	43	---
Langola, terrace	85	3s	---						
Duelm	10	4s	---						
Hubbard	5	4s	---						
D13B				---	---	25	50	41	---
Langola, terrace	85	3s	---						
Hubbard	10	4s	---						
Duelm	5	4s	---						
D15A				---	---	32	---	39	---
Seelyeville, drained	65	3w	---						
Markey, drained	25	3w	---						
Mineral soil, drained	10	3w	---						
D16A				---	---	---	---	---	---
Seelyeville, ponded	45	8w	---						
Markey, ponded	45	8w	---						
Mineral soil, ponded	10	8w	---						
D17A				---	---	24	50	37	---
Duelm	90	4s	---						
Isan	8	3w	---						
Hubbard	2	4s	---						
D18B				---	---	30	---	45	---
Braham, terrace	85	3s	---						
Duelm	15	4s	---						
D19A				---	---	---	---	---	---
Fordum, frequently flooded	65	6w	---						
Winterfield, frequently flooded	25	4w	---						
Fordum, occasionally flooded	10	4w	---						
D20A				---	---	22	---	33	---
Isan	85	3w	---						
Isan, depressional	10	6w	---						
Duelm	5	4s	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Irish potatoes N	Irish potatoes I	Soybeans N	Soybeans I	Spring wheat N	Spring wheat I
				Cwt	Cwt	Bu	Bu	Bu	Bu
D21A				---	---	---	---	---	---
Isan, depressional	85	6w	---						
Isan	15	3w	---						
D23A				---	---	46	50	53	---
Southhaven	90	1	---						
Dorset	5	3s	---						
Mosford	5	3s	---						
D24A				---	---	35	---	48	---
Sedgeville, occasionally flooded	85	2w	---						
Elkriver, occasionally flooded	15	2w	---						
D25A				---	---	28	---	40	---
Soderville, terrace	90	3s	---						
Forada	10	2w	---						
D26A				---	---	30	---	45	---
Foldahl, MAP >25	90	3s	---						
Hubbard	5	4s	---						
Isan	5	3w	---						
D27A				---	---	30	---	42	---
Dorset, loamy substratum	80	3s	---						
Dorset	15	3s	---						
Southhaven	5	1	---						
D28B				---	---	---	---	---	---
Urban land	75	---	---						
Bygland, MAP >25	20	2e	---						
Bygland, sandy substratum	5	2e	---						
D29B				---	---	---	---	---	---
Urban land	70	---	---						
Hubbard, bedrock substratum	20	4s	---						
Hubbard	5	4s	---						
Mosford	5	3s	---						
D30A				---	---	---	---	---	---
Seelyeville, surface drained	45	6w	---						
Markey, surface drained	45	6w	---						
Mineral soil, surface drained	10	6w	---						
D31A				---	---	---	---	---	---
Urban land	70	---	---						
Duelm	20	4s	---						
Hubbard	5	4s	---						
Isan	5	3w	---						
D33B				---	---	---	---	---	---
Urban land	70	---	---						
Dorset	20	3s	---						
Verndale, acid substratum	5	3s	---						
Hubbard	5	4s	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Irish potatoes		Soybeans		Spring wheat	
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
D33C				---	---	---	---	---	---
Urban land	70	---	---						
Dorset	20	4e	---						
Verndale, acid substratum	5	4e	---						
Hubbard	5	6s	---						
D34B				---	---	---	---	---	---
Urban land	75	---	---						
Hubbard	20	4s	---						
Mosford	5	3s	---						
D35A				---	---	---	---	---	---
Elkriver, occasionally flooded	70	2w	---						
Fordum, occasionally flooded	20	6w	---						
Udipsamments	5	---	---						
Winterfield, occasionally flooded	5	4w	---						
D37F				---	---	---	---	---	---
Dorset, bedrock substratum	70	8s	---						
Rock outcrop	20	---	---						
Hubbard, bedrock substratum	10	8s	---						
D40A				---	---	24	---	38	---
Kratka, thick solum	80	3w	---						
Duelm	10	4s	---						
Foldahl, MAP >25	10	3s	---						
D41C				---	---	---	---	---	---
Urban land	75	---	---						
Waukon	20	3e	---						
Braham	5	3s	---						
D43A				---	---	45	---	56	---
Gonvick, terrace	85	1	---						
Braham	15	3s	---						
GP. Pits, gravel-Udipsamments									
L2B				---	---	23	---	35	---
Malardi	65	3s	---						
Hawick	25	4s	---						
Rasset	5	2e	---						
Eden Prairie	5	3s	---						
L2C				---	---	23	---	34	---
Malardi	60	4e	---						
Hawick	25	4s	---						
Tomall	10	2e	---						
Crowfork	5	4s	---						
L2D				---	---	21	---	33	---
Malardi	55	6e	---						
Hawick	30	6e	---						
Tomall	10	2e	---						
Crowfork	5	6s	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Irish potatoes N	Irish potatoes I	Soybeans N	Soybeans I	Spring wheat N	Spring wheat I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L2E				---	---	---	---	---	---
Malardi	55	7e	---						
Hawick	30	7e	---						
Tomall	15	2e	---						
L3A				---	---	32	---	44	---
Rasset	90	2s	---						
Malardi	8	3s	---						
Eden Prairie	2	3s	---						
L3B				---	---	28	---	41	---
Rasset	80	2e	---						
Malardi	15	3s	---						
Eden Prairie	5	3s	---						
L3C				---	---	26	---	40	---
Rasset	75	3e	---						
Malardi	10	4e	---						
Tomall	10	2e	---						
Eden Prairie	5	4e	---						
L4B				---	---	24	---	39	---
Crowfork	90	4s	---						
Eden Prairie	10	3s	---						
L4C				---	---	22	---	37	---
Crowfork	90	4s	---						
Eden Prairie	10	4e	---						
L4D				---	---	16	---	34	---
Crowfork	85	6s	---						
Eden Prairie	15	6e	---						
L6A				---	---	35	---	42	---
Biscay	85	2w	---						
Biscay, depressional	10	6w	---						
Mayer	5	2w	---						
L7A				---	---	---	---	---	---
Biscay, depressional	80	6w	---						
Biscay	15	2w	---						
Mayer	5	2w	---						
L8A				---	---	35	---	41	---
Darfur	95	2w	---						
Dassel	5	5w	---						
L9A				---	---	38	---	52	---
Minnetonka	90	2w	---						
Depressional soil	10	6w	---						
L10B				---	---	32	---	44	---
Kasota	80	2e	---						
Eden Prairie	10	3s	---						
Wet soil in swales	10	2w	---						
L11B				---	---	40	---	53	---
Grays	90	2e	---						
Kasota	5	2e	---						
Crowfork	5	4s	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Irish potatoes		Soybeans		Spring wheat	
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L12A				---	---	---	---	---	---
Muskego, frequently flooded	30	8w	---						
Blue Earth, frequently flooded	30	8w	---						
Houghton, frequently flooded	30	8w	---						
Oshawa, frequently flooded	10	8w	---						
L13A				---	---	38	---	43	---
Klossner, drained	80	3w	---						
Mineral soil, drained	15	3w	---						
Houghton, drained	5	3w	---						
L14A				---	---	35	---	41	---
Houghton, drained	80	3w	---						
Klossner, drained	10	3w	---						
Mineral soil, drained	10	3w	---						
L15A				---	---	---	---	---	---
Klossner, ponded	30	8w	---						
Okoboji, ponded	30	8w	---						
Glencoe, ponded	30	8w	---						
Houghton, ponded	10	8w	---						
L16A				---	---	---	---	---	---
Muskego, ponded	30	8w	---						
Blue Earth, ponded	30	8w	---						
Houghton, ponded	30	8w	---						
Klossner, ponded	10	8w	---						
L17B				---	---	39	---	47	---
Angus	50	2e	---						
Malardi	30	3s	---						
Moon	10	3s	---						
Cordova	10	2w	---						
L18A				---	---	42	---	50	---
Shields	85	2w	---						
Lerdal	10	2e	---						
Mazaska	5	2w	---						
L19B				---	---	31	---	46	---
Moon	85	3s	---						
Finchford	15	4s	---						
L20B				---	---	30	---	45	---
Fedji, silty substratum	85	3s	---						
Finchford	15	4s	---						
L21A				---	---	42	---	52	---
Canisteo	80	2w	---						
Cordova	15	2w	---						
Glencoe	5	6w	---						
L22C2				---	---	40	---	49	---
Lester, eroded	70	3e	---						
Angus	15	2e	---						
Terril	12	2e	---						
Hamel	3	2w	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Irish potatoes N	Irish potatoes I	Soybeans N	Soybeans I	Spring wheat N	Spring wheat I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L22D2				---	---	30	---	40	---
Lester, eroded	80	4e	---						
Terril	10	2e	---						
Hamel	5	2w	---						
Ridgeton	5	3e	---						
L22E				---	---	---	---	---	---
Lester, morainic	75	6e	---						
Terril	15	2e	---						
Hamel	5	2w	---						
Ridgeton	5	4e	---						
L22F				---	---	---	---	---	---
Lester, morainic	75	7e	---						
Terril	10	2e	---						
Ridgeton	10	6e	---						
Hamel	5	2w	---						
L23A				---	---	45	---	56	---
Cordova	85	2w	---						
Glencoe	10	6w	---						
Nessel	5	1	---						
L24A				---	---	42	---	48	---
Glencoe, depressional	90	3w	---						
Cordova	10	2w	---						
L25A				---	---	47	---	56	---
Le Sueur	80	1	---						
Cordova	15	2w	---						
Angus	5	2e	---						
L26A				---	---	44	---	54	---
Shorewood	85	1	---						
Minnetonka	10	2w	---						
Good Thunder	5	2w	---						
L26B				---	---	41	---	50	---
Shorewood	90	2e	---						
Good Thunder	5	2w	---						
Minnetonka	5	2w	---						
L26C2				---	---	38	---	45	---
Shorewood, eroded	95	3e	---						
Minnetonka	5	2w	---						
L27A				---	---	---	---	---	---
Suckercreek, frequently flooded	85	5w	---						
Suckercreek, occasionally flooded	10	4w	---						
Hanlon, occasionally flooded	5	2s	---						
L28A				---	---	38	---	45	---
Suckercreek, occasionally flooded	80	4w	---						
Suckercreek, frequently flooded	10	5w	---						
Hanlon, occasionally flooded	10	2s	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Irish potatoes		Soybeans		Spring wheat	
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L29A				---	---	38	---	45	---
Hanlon, occasionally flooded	80	2s	---						
Suckercreek, occasionally flooded	10	4w	---						
Suckercreek, frequently flooded	10	5w	---						
L30A				---	---	---	---	---	---
Medo, surface drained	65	6w	---						
Medo, drained	20	3w	---						
Mineral soil, drained	15	3w	---						
L31A				---	---	---	---	---	---
Medo, ponded	30	8w	---						
Dassel, ponded	30	8w	---						
Biscay, ponded	30	8w	---						
Houghton, ponded	5	8w	---						
Muskego, ponded	5	8w	---						
L32D				---	---	---	---	---	---
Hawick	75	7s	---						
Crowfork	15	7s	---						
Tomall	10	2e	---						
L32F				---	---	---	---	---	---
Hawick	75	8s	---						
Crowfork	15	8s	---						
Tomall	10	2e	---						
L35A				---	---	44	---	54	---
Lerdal	80	2e	---						
Mazaska	10	2w	---						
Cordova	5	2w	---						
Le Sueur	5	1	---						
L36A				---	---	46	---	55	---
Hamel, overwash	50	2w	---						
Hamel	43	2w	---						
Terril	5	2e	---						
Glencoe	2	3w	---						
L37B				---	---	47	---	52	---
Angus, morainic	80	2e	---						
Angus, eroded	10	2e	---						
Le Sueur	5	1	---						
Cordova	5	2w	---						
L38A				---	---	38	---	48	---
Rushriver, occasionally flooded	75	2w	---						
Oshawa, frequently flooded	15	6w	---						
Minneiska, occasionally flooded	5	2s	---						
Algansee, occasionally flooded	5	4w	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Irish potatoes N	Irish potatoes I	Soybeans N	Soybeans I	Spring wheat N	Spring wheat I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L39A				---	---	39	---	49	---
Minneiska, occasionally flooded	70	2s	---						
Rushriver, occasionally flooded	15	2w	---						
Oshawa, frequently flooded	10	6w	---						
Algansee, occasionally flooded	5	4w	---						
L40B				---	---	46	---	51	---
Angus	45	2e	---						
Kilkenny	40	2e	---						
Lerdal	10	2e	---						
Mazaska	5	2w	---						
L41C2				---	---	37	---	47	---
Lester, eroded	45	3e	---						
Kilkenny, eroded	40	3e	---						
Terril	10	2e	---						
Derrynane	5	2w	---						
L41D2				---	---	30	---	40	---
Lester, eroded	45	4e	---						
Kilkenny, eroded	35	4e	---						
Terril	10	2e	---						
Derrynane	5	2w	---						
Ridgeton	5	3e	---						
L41E				---	---	---	---	---	---
Lester	45	6e	---						
Kilkenny	40	6e	---						
Terril	5	2e	---						
Derrynane	5	2w	---						
Ridgeton	5	4e	---						
L41F				---	---	---	---	---	---
Lester	45	7e	---						
Kilkenny	35	7e	---						
Ridgeton	10	6e	---						
Terril	5	2e	---						
Derrynane	5	2w	---						
L42B				---	---	30	---	45	---
Kingsley	70	2e	---						
Gotham	25	4s	---						
Grays	5	2e	---						
L42C				---	---	27	---	43	---
Kingsley	70	3e	---						
Gotham	25	6s	---						
Grays	5	2e	---						
L42D				---	---	25	---	40	---
Kingsley	70	4e	---						
Gotham	25	6s	---						
Grays	5	2e	---						
L42E				---	---	---	---	---	---
Kingsley	70	6e	---						
Gotham	25	6s	---						
Grays	5	2e	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Irish potatoes		Soybeans		Spring wheat	
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L42F				---	---	---	---	---	---
Kingsley	70	7e	---						
Gotham	25	7s	---						
Grays	5	2e	---						
L43A				---	---	39	---	51	---
Brouillett, occasionally flooded	80	2w	---						
Minneiska, occasionally flooded	10	2s	---						
Rushriver, occasionally flooded	10	2w	---						
L44A				---	---	47	---	55	---
Nessel	85	1	---						
Cordova	10	2w	---						
Angus	5	2e	---						
L45A				---	---	43	---	55	---
Dundas	65	2w	---						
Cordova	25	2w	---						
Nessel	5	1	---						
Glencoe	5	6w	---						
L46A				---	---	44	---	53	---
Tomall	80	2e	---						
Rasset	10	2s	---						
Malardi	10	3s	---						
L47A				---	---	30	---	40	---
Eden Prairie	85	3s	---						
Malardi	10	3s	---						
Rasset	5	2s	---						
L47B				---	---	24	---	35	---
Eden Prairie	80	3s	---						
Malardi	10	3s	---						
Rasset	10	2e	---						
L47C				---	---	22	---	32	---
Eden Prairie	70	4e	---						
Malardi	10	4e	---						
Rasset	10	2e	---						
Hawick	10	4s	---						
L49A				---	---	---	---	---	---
Klossner, surface drained	65	6w	---						
Klossner, drained	20	3w	---						
Mineral soil, drained	15	3w	---						
L50A				---	---	---	---	---	---
Houghton, surface drained	40	6w	---						
Muskego, surface drained	40	6w	---						
Klossner, drained	10	3w	---						
Mineral soil, drained	10	3w	---						
L52C				---	---	---	---	---	---
Urban land	75	---	---						
Lester	20	6e	---						
Kingsley	5	6e	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Irish potatoes N	Irish potatoes I	Soybeans N	Soybeans I	Spring wheat N	Spring wheat I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L52E				---	---	---	---	---	---
Urban land	75	---	---						
Lester	20	7e	---						
Kingsley	5	7e	---						
L53B				---	---	---	---	---	---
Urban land	70	---	---						
Moon	20	3s	---						
Lester	10	3e	---						
L54A				---	---	---	---	---	---
Urban land	70	---	---						
Dundas	20	2w	---						
Nessel	10	1	---						
L55B				---	---	---	---	---	---
Urban land	70	---	---						
Malardi	20	3s	---						
Rasset	5	2e	---						
Eden Prairie	5	3s	---						
L55C				---	---	---	---	---	---
Urban land	70	---	---						
Malardi	20	4e	---						
Hawick	5	4s	---						
Crowfork	5	4s	---						
L56A				---	---	---	---	---	---
Muskego, frequently flooded	45	6w	---						
Klossner, frequently flooded	45	6w	---						
Suckercreek, frequently flooded	10	5w	---						
L58B				---	---	38	---	48	---
Koronis	60	2e	---						
Kingsley	25	2e	---						
Forestcity	10	2w	---						
Gotham	5	4s	---						
L58C2				---	---	36	---	45	---
Koronis, eroded	55	3e	---						
Kingsley, eroded	25	3e	---						
Forestcity	15	2w	---						
Gotham	5	6s	---						
L58D2				---	---	31	---	42	---
Koronis, eroded	55	4e	---						
Kingsley, eroded	25	4e	---						
Forestcity	15	2w	---						
Gotham	5	6s	---						
L58E				---	---	---	---	---	---
Koronis	55	7e	---						
Kingsley	25	7e	---						
Forestcity	15	2w	---						
Gotham	5	6s	---						
L59A				---	---	40	---	49	---
Forestcity	70	2w	---						
Lundlake, depressional	25	3w	---						
Marcellon	5	1	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Irish potatoes		Soybeans		Spring wheat	
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L60B				---	---	43	---	50	---
Angus	65	2e	---						
Moon	30	3s	---						
Hamel	5	2w	---						
L61C2				---	---	36	---	47	---
Lester, eroded	60	3e	---						
Metea, eroded	25	4e	---						
Terril	12	2e	---						
Hamel	3	2w	---						
L61D2				---	---	29	---	40	---
Lester, eroded	55	4e	---						
Metea, eroded	25	6e	---						
Terril	12	2e	---						
Ridgeton	5	3e	---						
Hamel	3	2w	---						
L61E				---	---	---	---	---	---
Lester	55	6e	---						
Metea	25	7e	---						
Terril	10	2e	---						
Hamel	5	2w	---						
Ridgeton	5	4e	---						
L62B				---	---	36	---	47	---
Koronis	55	3e	---						
Kingsley	20	3e	---						
Malardi	20	3s	---						
Forestcity	5	2w	---						
L62C2				---	---	32	---	43	---
Koronis, eroded	40	3e	---						
Kingsley, eroded	25	3e	---						
Malardi, eroded	25	4e	---						
Forestcity	10	2w	---						
L62D2				---	---	29	---	40	---
Koronis, eroded	40	4e	---						
Kingsley, eroded	25	4e	---						
Malardi, eroded	25	4e	---						
Forestcity	10	2w	---						
L62E				---	---	---	---	---	---
Koronis	40	7e	---						
Kingsley	25	7e	---						
Malardi	25	7e	---						
Forestcity	10	2w	---						
L64A				---	---	---	---	---	---
Tadkee	50	3w	---						
Tadkee, depressional	36	6w	---						
Better drained soil	8	3s	---						
Granby	4	5w	---						
Less sandy soil	2	2w	---						
L70C2				---	---	35	---	45	---
Lester, eroded	60	3e	---						
Malardi, eroded	25	4e	---						
Terril	12	2e	---						
Hamel	3	2w	---						

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability N	Land capability I	Irish potatoes N	Irish potatoes I	Soybeans N	Soybeans I	Spring wheat N	Spring wheat I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L70D2				---	---	28	---	39	---
Lester, eroded	55	4e	---						
Malardi, eroded	25	6e	---						
Terril	12	2e	---						
Ridgeton	5	3e	---						
Hamel	3	2w	---						
L70E				---	---	---	---	---	---
Lester	55	6e	---						
Malardi	25	7e	---						
Terril	10	2e	---						
Hamel	5	2w	---						
Ridgeton	5	4e	---						
L71C				---	---	29	---	43	---
Metea	80	4e	---						
Lester	15	3e	---						
Moon	5	3s	---						
L72A				---	---	38	---	48	---
Lundlake, depressional	90	3w	---						
Forestcity	10	2w	---						
L110E				---	---	---	---	---	---
Lester	50	6e	---						
Ridgeton	30	4e	---						
Cokato	10	6e	---						
Belview	6	6e	---						
Hamel	2	2w	---						
Terril	2	2e	---						
L110F				---	---	---	---	---	---
Lester	55	7e	---						
Ridgeton	30	6e	---						
Cokato	8	7e	---						
Belview	4	7e	---						
Terril	2	2e	---						
Hamel	1	2w	---						
L131A				---	---	31	---	42	---
Litchfield	85	3s	---						
Darfur	10	2w	---						
Crowfork	5	4s	---						
L132A				---	---	44	---	53	---
Hamel	50	2w	---						
Glencoe, depressional	30	3w	---						
Hamel, overwash	15	2w	---						
Terril	5	2e	---						
M-W.									
Water, miscellaneous	100	---	---						
U1A.									
Urban land-Udorthents, wet substratum									
U2A.									
Udorthents, wet substratum									

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land capability		Irish potatoes		Soybeans		Spring wheat	
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
U3B. Udorthents (cut and fill land)									
U4A. Urban land-Udipsamments (cut and fill land)									
U5A. Urban land-Udorthents, wet substratum									
U6B. Urban land-Udorthents (cut and fill land)									
W. Water									

Table 8.--Forage Suitability Groups

(Absence of an entry indicates that a suitability group is not assigned. See text for information about forage suitability groups)

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
D1B:			
Anoka, terrace	55	91	22
Zimmerman, terrace	40	91	22
Kost	5	91	22
D1C:			
Anoka, terrace	45	91	22
Zimmerman, terrace	45	91	22
Kost	10	91	22
D2A:			
Elkriver, rarely flooded	85	91	6
Mosford, rarely flooded	10	91	6
Elkriver, occasionally flooded	5	91	5
D3A:			
Elkriver, occasionally flooded	80	91	5
Fordum, frequently flooded	15	91	16
Winterfield, occasionally flooded	5	91	7
D4A:			
Dorset	90	91	22
Verndale, acid substratum	8	91	22
Almora	2	91	6
D4B:			
Dorset	85	91	22
Verndale, acid substratum	10	91	22
Almora	5	91	6
D4C:			
Dorset	75	91	22
Verndale, acid substratum	15	91	22
Almora	10	91	6

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
D5B:			
Dorset	65	91	22
Two Inlets	25	91	22
Verndale, acid substratum	5	91	22
Southhaven	5	91	6
D5C:			
Dorset	55	91	22
Two Inlets	30	91	22
Southhaven	10	91	6
Verndale, acid substratum	5	91	22
D5D:			
Dorset	50	91	22
Two Inlets	35	91	22
Southhaven	10	91	6
Verndale, acid substratum	5	91	22
D6A:			
Verndale, acid substratum	90	91	22
Dorset	7	91	22
Hubbard	3	91	22
D6B:			
Verndale, acid substratum	85	91	22
Dorset	10	91	22
Hubbard	5	91	22
D6C:			
Verndale, acid substratum	80	91	22
Dorset	15	91	22
Hubbard	5	91	22
D7A:			
Hubbard	95	91	22
Mosford	5	91	22
D7B:			
Hubbard	90	91	22
Mosford	10	91	22

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
D7C:			
Hubbard	80	91	22
Sandberg	10	91	22
Mosford	10	91	22
D8B:			
Sandberg	95	91	22
Arvilla, map>25	5	91	22
D8C:			
Sandberg	80	91	22
Corliss	15	91	22
Southhaven	5	91	6
D8D:			
Sandberg	80	91	22
Corliss	10	91	22
Southhaven	10	91	6
D8E:			
Sandberg	80	91	24
Corliss	10	91	24
Southhaven	10	91	6
D10A:			
Forada	95	91	5
Depressional soil	5	91	24
D11A:			
Lindaas	80	91	1
Lindaas, sandy substratum	10	91	1
Depressional soil	10	91	24
D12B:			
Bygland, MAP >25	70	91	2
Bygland, sandy substratum	15	91	2
Lindaas	10	91	1
Depressional soil	5	91	24
D12C2:			
Bygland, MAP >25	70	91	2
Bygland, sandy substratum	15	91	2

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
D12C2:			
Lindaas	10	91	1
Depressional soil	5	91	24
D13A:			
Langola, terrace	85	91	8
Duelm	10	91	8
Hubbard	5	91	22
D13B:			
Langola, terrace	85	91	8
Hubbard	10	91	22
Duelm	5	91	8
D15A:			
Seelyeville, drained	65	91	14
Markey, drained	25	91	14
Mineral soil, drained	10	91	13
D16A:			
Seelyeville, ponded	45	91	24
Markey, ponded	45	91	24
Mineral soil, ponded	10	91	24
D17A:			
Duelm	90	91	8
Isan	8	91	7
Hubbard	2	91	22
D18B:			
Braham, terrace	85	91	6
Duelm	15	91	8
D19A:			
Fordum, frequently flooded	65	91	16
Winterfield, frequently flooded	25	91	7
Fordum, occasionally flooded	10	91	5
D20A:			
Isan	85	91	7
Isan, depressional	10	91	24
Duelm	5	91	8

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
D21A:			
Isan, depressional	85	91	24
Isan	15	91	7
D23A:			
Southhaven	90	91	6
Dorset	5	91	22
Mosford	5	91	22
D24A:			
Sedgeville, occasionally flooded	85	91	9
Elkriver, occasionally flooded	15	91	5
D25A:			
Soderville, terrace	90	91	8
Forada	10	91	5
D26A:			
Foldahl, MAP >25	90	91	6
Hubbard	5	91	22
Isan	5	91	7
D27A:			
Dorset, loamy substratum	80	91	6
Dorset	15	91	22
Southhaven	5	91	6
D28B:			
Urban land	75	91	---
Bygland, MAP >25	20	91	2
Bygland, sandy substratum	5	91	2
D29B:			
Urban land	70	91	---
Hubbard, bedrock substratum	20	91	22
Hubbard	5	91	22
Mosford	5	91	22
D30A:			
Seelyeville, surface drained	45	91	24
Markey, surface drained	45	91	24

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
D30A:			
Mineral soil, surface drained	10	91	24
D31A:			
Urban land	70	91	---
Duelm	20	91	8
Hubbard	5	91	22
Isan	5	91	7
D33B:			
Urban land	70	91	---
Dorset	20	91	22
Verndale, acid substratum	5	91	22
Hubbard	5	91	22
D33C:			
Urban land	70	91	---
Dorset	20	91	22
Verndale, acid substratum	5	91	22
Hubbard	5	91	22
D34B:			
Urban land	75	91	---
Hubbard	20	91	22
Mosford	5	91	22
D35A:			
Elkriver, occasionally flooded	70	91	5
Fordum, occasionally flooded	20	91	16
Udipsamments	5	91	24
Winterfield, occasionally flooded	5	91	7
D37F:			
Dorset, bedrock substratum	70	91	24
Rock outcrop	20	91	24
Hubbard, bedrock substratum	10	91	22

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
D40A:			
Kratka, thick solum	80	91	5
Duelm	10	91	8
Foldahl, MAP >25	10	91	6
D41C:			
Urban land	75	91	---
Waukon	20	91	2
Braham	5	91	6
D43A:			
Gonvick, terrace	85	91	1
Braham	15	91	6
GP:			
Pits, gravel-Udipsamments			
L2B:			
Malardi	65	103	22
Hawick	25	103	22
Rasset	5	103	6
Eden Prairie	5	103	22
L2C:			
Malardi	60	103	22
Hawick	25	103	22
Tomall	10	103	2
Crowfork	5	103	22
L2D:			
Malardi	55	103	22
Hawick	30	103	22
Tomall	10	103	2
Crowfork	5	103	22
L2E:			
Malardi	55	103	24
Hawick	30	103	24
Tomall	15	103	2
L3A:			
Rasset	90	103	6
Malardi	8	103	22
Eden Prairie	2	103	22

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L3B:			
Rasset	80	103	6
Malardi	15	103	22
Eden Prairie	5	103	22
L3C:			
Rasset	75	103	6
Malardi	10	103	22
Tomall	10	103	2
Eden Prairie	5	103	22
L4B:			
Crowfork	90	103	22
Eden Prairie	10	103	22
L4C:			
Crowfork	90	103	22
Eden Prairie	10	103	22
L4D:			
Crowfork	85	103	22
Eden Prairie	15	103	22
L6A:			
Biscay	85	103	1
Biscay, depressional	10	103	24
Mayer	5	103	9
L7A:			
Biscay, depressional	80	103	24
Biscay	15	103	1
Mayer	5	103	9
L8A:			
Darfur	95	103	5
Dassel	5	103	24
L9A:			
Minnetonka	90	103	1
Depressional soil	10	103	24
L10B:			
Kasota	80	103	2
Eden Prairie	10	103	22
Wet soil in swales	10	103	1

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L11B:			
Grays	90	103	6
Kasota	5	103	2
Crowfork	5	103	22
L12A:			
Muskego, frequently flooded	30	103	24
Blue Earth, frequently flooded	30	103	24
Houghton, frequently flooded	30	103	24
Oshawa, frequently flooded	10	103	24
L13A:			
Klossner, drained	80	103	14
Mineral soil, drained	15	103	13
Houghton, drained	5	103	14
L14A:			
Houghton, drained	80	103	14
Klossner, drained	10	103	14
Mineral soil, drained	10	103	13
L15A:			
Klossner, ponded	30	103	24
Okoboji, ponded	30	103	24
Glencoe, ponded	30	103	24
Houghton, ponded	10	103	24
L16A:			
Muskego, ponded	30	103	24
Blue Earth, ponded	30	103	24
Houghton, ponded	30	103	24
Klossner, ponded	10	103	24
L17B:			
Angus	50	103	6
Malardi	30	103	22
Moon	10	103	6
Cordova	10	103	1

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L18A:			
Shields	85	103	5
Lerdal	10	103	5
Mazaska	5	103	5
L19B:			
Moon	85	103	6
Finchford	15	103	22
L20B:			
Fedji, silty substratum	85	103	6
Finchford	15	103	22
L21A:			
Canisteo	80	103	9
Cordova	15	103	1
Glencoe	5	103	13
L22C2:			
Lester, eroded	70	103	6
Angus	15	103	6
Terril	12	103	2
Hamel	3	103	1
L22D2:			
Lester, eroded	80	103	23
Terril	10	103	2
Hamel	5	103	1
Ridgeton	5	103	2
L22E:			
Lester, morainic	75	103	17
Terril	15	103	2
Hamel	5	103	1
Ridgeton	5	103	23
L22F:			
Lester, morainic	75	103	24
Terril	10	103	2
Ridgeton	10	103	23
Hamel	5	103	1

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L23A:			
Cordova	85	103	1
Glencoe	10	103	13
Nessel	5	103	6
L24A:			
Glencoe, depressional	90	103	13
Cordova	10	103	1
L25A:			
Le Sueur	80	103	6
Cordova	15	103	1
Angus	5	103	6
L26A:			
Shorewood	85	103	1
Minnetonka	10	103	1
Good Thunder	5	103	6
L26B:			
Shorewood	90	103	2
Good Thunder	5	103	6
Minnetonka	5	103	1
L26C2:			
Shorewood, eroded	95	103	2
Minnetonka	5	103	1
L27A:			
Suckercreek, frequently flooded	85	103	16
Suckercreek, occasionally flooded	10	103	9
Hanlon, occasionally flooded	5	103	2
L28A:			
Suckercreek, occasionally flooded	80	103	9
Suckercreek, frequently flooded	10	103	16
Hanlon, occasionally flooded	10	103	2
L29A:			
Hanlon, occasionally flooded	80	103	2

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L29A:			
Suckercreek, occasionally flooded	10	103	9
Suckercreek, frequently flooded	10	103	16
L30A:			
Medo, surface drained	65	103	24
Medo, drained	20	103	14
Mineral soil, drained	15	103	13
L31A:			
Medo, ponded	30	103	24
Dassel, ponded	30	103	24
Biscay, ponded	30	103	24
Houghton, ponded	5	103	24
Muskego, ponded	5	103	24
L32D:			
Hawick	75	103	22
Crowfork	15	103	22
Tomall	10	103	2
L32F:			
Hawick	75	103	24
Crowfork	15	103	24
Tomall	10	103	2
L35A:			
Lerdal	80	103	5
Mazaska	10	103	5
Cordova	5	103	1
Le Sueur	5	103	6
L36A:			
Hamel, overwash	50	103	1
Hamel	43	103	1
Terril	5	103	2
Glencoe	2	103	13
L37B:			
Angus, morainic	80	103	6
Angus, eroded	10	103	6
Le Sueur	5	103	6

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L37B:			
Cordova	5	103	1
L38A:			
Rushriver, occasionally flooded	75	103	9
Oshawa, frequently flooded	15	103	24
Minneiska, occasionally flooded	5	103	10
Algansee, occasionally flooded	5	103	7
L39A:			
Minneiska, occasionally flooded	70	103	10
Rushriver, occasionally flooded	15	103	9
Oshawa, frequently flooded	10	103	24
Algansee, occasionally flooded	5	103	7
L40B:			
Angus	45	103	6
Kilkenny	40	103	6
Lerdal	10	103	5
Mazaska	5	103	5
L41C2:			
Lester, eroded	45	103	6
Kilkenny, eroded	40	103	6
Terril	10	103	2
Derrynane	5	103	1
L41D2:			
Lester, eroded	45	103	23
Kilkenny, eroded	35	103	23
Terril	10	103	2
Derrynane	5	103	1
Ridgeton	5	103	2
L41E:			
Lester	45	103	17
Kilkenny	40	103	17

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L41E:			
Terril	5	103	2
Derrynane	5	103	1
Ridgeton	5	103	23
L41F:			
Lester	45	103	24
Kilkenny	35	103	24
Ridgeton	10	103	23
Terril	5	103	2
Derrynane	5	103	1
L42B:			
Kingsley	70	103	6
Gotham	25	103	22
Grays	5	103	6
L42C:			
Kingsley	70	103	6
Gotham	25	103	22
Grays	5	103	6
L42D:			
Kingsley	70	103	23
Gotham	25	103	22
Grays	5	103	6
L42E:			
Kingsley	70	103	17
Gotham	25	103	18
Grays	5	103	6
L42F:			
Kingsley	70	103	24
Gotham	25	103	24
Grays	5	103	6
L43A:			
Brouillett, occasionally flooded	80	103	1
Minneiska, occasionally flooded	10	103	10
Rushriver, occasionally flooded	10	103	9

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L44A:			
Nessel	85	103	6
Cordova	10	103	1
Angus	5	103	6
L45A:			
Dundas	65	103	1
Cordova	25	103	1
Nessel	5	103	6
Glencoe	5	103	13
L46A:			
Tomall	80	103	2
Rasset	10	103	6
Malardi	10	103	22
L47A:			
Eden Prairie	85	103	22
Malardi	10	103	22
Rasset	5	103	6
L47B:			
Eden Prairie	80	103	22
Malardi	10	103	22
Rasset	10	103	6
L47C:			
Eden Prairie	70	103	22
Malardi	10	103	22
Rasset	10	103	6
Hawick	10	103	22
L49A:			
Klossner, surface drained	65	103	24
Klossner, drained	20	103	14
Mineral soil, drained	15	103	13
L50A:			
Houghton, surface drained	40	103	24
Muskego, surface drained	40	103	24
Klossner, drained	10	103	14
Mineral soil, drained	10	103	13

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L52C:			
Urban land	75	103	---
Lester	20	103	6
Kingsley	5	103	6
L52E:			
Urban land	75	103	---
Lester	20	103	17
Kingsley	5	103	17
L53B:			
Urban land	70	103	---
Moon	20	103	6
Lester	10	103	6
L54A:			
Urban land	70	103	---
Dundas	20	103	1
Nessel	10	103	6
L55B:			
Urban land	70	103	---
Malardi	20	103	22
Rasset	5	103	6
Eden Prairie	5	103	22
L55C:			
Urban land	70	103	---
Malardi	20	103	22
Hawick	5	103	22
Crowfork	5	103	22
L56A:			
Muskego, frequently flooded	45	103	24
Klossner, frequently flooded	45	103	24
Suckercreek, frequently flooded	10	103	24
L58B:			
Koronis	60	103	6
Kingsley	25	103	6
Forestcity	10	103	5
Gotham	5	103	22

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L58C2:			
Koronis, eroded	55	103	6
Kingsley, eroded	25	103	6
Forestcity	15	103	5
Gotham	5	103	22
L58D2:			
Koronis, eroded	55	103	23
Kingsley, eroded	25	103	23
Forestcity	15	103	5
Gotham	5	103	22
L58E:			
Koronis	55	103	17
Kingsley	25	103	17
Forestcity	15	103	5
Gotham	5	103	18
L59A:			
Forestcity	70	103	5
Lundlake, depressional	25	103	13
Marcellon	5	103	6
L60B:			
Angus	65	103	6
Moon	30	103	6
Hamel	5	103	1
L61C2:			
Lester, eroded	60	103	6
Metea, eroded	25	103	6
Terril	12	103	2
Hamel	3	103	1
L61D2:			
Lester, eroded	55	103	23
Metea, eroded	25	103	23
Terril	12	103	2
Ridgeton	5	103	2
Hamel	3	103	1

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L61E:			
Lester	55	103	17
Metea	25	103	17
Terril	10	103	2
Hamel	5	103	1
Ridgeton	5	103	23
L62B:			
Koronis	55	103	6
Kingsley	20	103	6
Malardi	20	103	22
Forestcity	5	103	5
L62C2:			
Koronis, eroded	40	103	6
Kingsley, eroded	25	103	6
Malardi, eroded	25	103	22
Forestcity	10	103	5
L62D2:			
Koronis, eroded	40	103	23
Kingsley, eroded	25	103	23
Malardi, eroded	25	103	22
Forestcity	10	103	5
L62E:			
Koronis	40	103	17
Kingsley	25	103	17
Malardi	25	103	18
Forestcity	10	103	5
L64A:			
Tadkee	50	103	5
Tadkee, depressional	36	103	24
Better drained soil	8	103	6
Granby	4	103	24
Less sandy soil	2	103	5
L70C2:			
Lester, eroded	60	103	6
Malardi, eroded	25	103	22

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L70C2:			
Terril	12	103	2
Hamel	3	103	1
L70D2:			
Lester, eroded	55	103	23
Malardi, eroded	25	103	22
Terril	12	103	2
Ridgeton	5	103	2
Hamel	3	103	1
L70E:			
Lester	55	103	17
Malardi	25	103	24
Terril	10	103	2
Hamel	5	103	1
Ridgeton	5	103	23
L71C:			
Metea	80	103	6
Lester	15	103	6
Moon	5	103	6
L72A:			
Lundlake, depressional	90	103	13
Forestcity	10	103	5
L110E:			
Lester	50	103	17
Ridgeton	30	103	23
Cokato	10	103	17
Belview	6	103	17
Hamel	2	103	1
Terril	2	103	2
L110F:			
Lester	55	103	24
Ridgeton	30	103	23
Cokato	8	103	24
Belview	4	103	24
Terril	2	103	1
Hamel	1	103	1

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	MLRA	Forage suitability group
L131A:			
Litchfield	85	103	5
Darfur	10	103	5
Crowfork	5	103	22
L132A:			
Hamel	50	103	1
Glencoe, depressional	30	103	13
Hamel, overwash	15	103	2
Terril	5	103	2
M-W.			
Water, miscellaneous			
U1A.			
Urban land-Udorthents, wet substratum			
U2A.			
Udorthents, wet substratum			
U3B.			
Udorthents (cut and fill land)			
U4A.			
Urban land-Udipsamments (cut and fill land)			
U5A.			
Urban land-Udorthents, wet substratum			
U6B.			
Urban land-Udorthents (cut and fill land)			
W.			
Water			

Table 9.--Prime Farmland

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name)

Map symbol	Soil name
D2A	Elkriver fine sandy loam, 0 to 2 percent slopes, rarely flooded
D3A	Elkriver fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where protected from flooding or not frequently flooded during the growing season)
D10A	Forada sandy loam, 0 to 2 percent slopes (where drained)
D11A	Lindaas silt loam, 0 to 2 percent slopes (where drained)
D12B	Bygland silt loam, MAP >25, 2 to 6 percent slopes
D23A	Southhaven loam, 0 to 2 percent slopes
D24A	Sedgeville loam, 0 to 2 percent slopes, occasionally flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
D43A	Gonvick loam, terrace, 1 to 3 percent slopes
L3A	Rasset sandy loam, 0 to 2 percent slopes
L3B	Rasset sandy loam, 2 to 6 percent slopes
L6A	Biscay loam, 0 to 2 percent slopes (where drained)
L8A	Darfur sandy loam, 0 to 2 percent slopes (where drained)
L9A	Minnetonka silty clay loam, 0 to 2 percent slopes (where drained)
L10B	Kasota silty clay loam, 1 to 6 percent slopes
L11B	Grays very fine sandy loam, 2 to 8 percent slopes
L17B	Angus-Malardi complex, 2 to 6 percent slopes
L18A	Shields silty clay loam, 0 to 3 percent slopes (where drained)
L21A	Canisteo loam, 0 to 2 percent slopes (where drained)
L23A	Cordova loam, 0 to 2 percent slopes (where drained)
L24A	Glencoe loam, depressional, 0 to 1 percent slopes (where drained)
L25A	Le Sueur loam, 1 to 3 percent slopes
L26A	Shorewood silty clay loam, 0 to 3 percent slopes
L26B	Shorewood silty clay loam, 3 to 6 percent slopes
L28A	Suckercreek fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
L29A	Hanlon fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where protected from flooding or not frequently flooded during the growing season)
L35A	Lerdal loam, 1 to 3 percent slopes
L36A	Hamel, overwash-Hamel complex, 1 to 4 percent slopes (where drained)
L37B	Angus loam, morainic, 2 to 5 percent slopes
L38A	Rushriver very fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
L39A	Minneiska fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where protected from flooding or not frequently flooded during the growing season)
L40B	Angus-Kilkenny complex, 2 to 6 percent slopes
L43A	Brouillett loam, 0 to 2 percent slopes, occasionally flooded (where protected from flooding or not frequently flooded during the growing season)
L44A	Nessel loam, 1 to 3 percent slopes
L45A	Dundas-Cordova complex, 0 to 3 percent slopes (where drained)
L46A	Tomall loam, 0 to 2 percent slopes
L58B	Koronis-Kingsley complex, 2 to 6 percent slopes
L59A	Forestcity-Lundlake, depressional, complex, 0 to 3 percent slopes (where drained)
L60B	Angus-Moon complex, 2 to 5 percent slopes
L62B	Koronis-Kingsley-Malardi complex, 2 to 6 percent slopes
L72A	Lundlake loam, depressional, 0 to 1 percent slopes (where drained)
L132A	Hamel-Glencoe, depressional, complex, 0 to 3 percent slopes (where drained)

Table 10.--Windbreaks and Environmental Plantings

(Only the map units that include soils suitable for windbreaks and environmental plantings are listed. Absence of an entry indicates that trees generally do not grow to the given height)

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D1B:						
Anoka, terrace----------	55	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Zimmerman, terrace------	40	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D1B:						
Kost	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D1C:						
Anoka, terrace	45	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Zimmerman, terrace	45	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D1C:						
Kost	10	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D2A:						
Elkriver, rarely flooded	85	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
Mosford, rarely flooded	10	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D2A:						
Elkriver, occasionally flooded	5	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
D3A:						
Elkriver, occasionally flooded	80	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
Fordum, frequently flooded	15	---	---	---	---	---
Winterfield, occasionally flooded	5	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
D4A:						
Dorset	90	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D4A:						
Verndale, acid substratum	8	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Almora	2	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
D4B:						
Dorset	85	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Verndale, acid substratum	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Almora	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D4C:						
Dorset	75	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Verndale, acid substratum	15	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Almora	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
D5B:						
Dorset	65	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D5B:						
Two Inlets	25	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Verndale, acid substratum	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Southhaven	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood
D5C:						
Dorset	55	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D5C:						
Two Inlets	30	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Southhaven	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood
Verndale, acid substratum	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
D5D:						
Dorset	50	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D5D:						
Two Inlets	35	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Southhaven	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood
Verndale, acid substratum	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
D6A:						
Verndale, acid substratum	90	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D6A:						
Dorset	7	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Hubbard	3	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D6B:						
Verndale, acid substratum	85	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Dorset	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D6B:						
Hubbard	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D6C:						
Verndale, acid substratum	80	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Dorset	15	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D6C:						
Hubbard	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D7A:						
Hubbard	95	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Mosford	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D7B:						
Hubbard	90	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Mosford	10	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D7C:						
Hubbard	80	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Sandberg	10	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Mosford	10	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D8B:						
Sandberg	95	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Arvilla, MAP >25	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
D8C:						
Sandberg	80	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D8C:						
Corliss	15	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Southhaven	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood
D8D:						
Sandberg	80	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D8D:						
Corliss	10	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Southhaven	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood
D8E:						
Sandberg	80	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D8E:						
Corliss	10	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Southhaven	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood
D10A:						
Forada	95	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
Depressional soil	5	---	---	---	---	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D11A:						
Lindaas	80	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
Lindaas, sandy substratum	10	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
Depressional soil	10	---	---	---	---	---
D12B:						
Bygland, MAP >25	70	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, late lilac, sargent crabapple, Amur maple, bur oak, common chokecherry, gray dogwood, northern whitecedar, silver buffaloberry	Black Hills spruce, Manchurian crabapple, Russian-olive, Siberian crabapple, blue spruce, eastern redcedar, nannyberry, sugar maple, white spruce, Austrian pine, common hackberry	American basswood, Siberian elm, eastern white pine, green ash, jack pine, red pine, silver maple	Eastern cottonwood, Siouxland cottonwood, Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D12B:						
Bygland, sandy substratum	15	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, late lilac, sargent crabapple, Amur maple, bur oak, common chokecherry, gray dogwood, northern whitecedar, silver buffaloberry	Black Hills spruce, Manchurian crabapple, Russian-olive, Siberian crabapple, blue spruce, eastern redcedar, nannyberry, sugar maple, white spruce, Austrian pine, common hackberry	American basswood, Siberian elm, eastern white pine, green ash, jack pine, red pine, silver maple	Eastern cottonwood, Siouxland cottonwood, Carolina poplar
Lindaas	10	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
Depressional soil	5	---	---	---	---	---
D12C2:						
Bygland, MAP >25	70	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, late lilac, sargent crabapple, Amur maple, bur oak, common chokecherry, gray dogwood, northern whitecedar, silver buffaloberry	Black Hills spruce, Manchurian crabapple, Russian-olive, Siberian crabapple, blue spruce, eastern redcedar, nannyberry, sugar maple, white spruce, Austrian pine, common hackberry	American basswood, Siberian elm, eastern white pine, green ash, jack pine, red pine, silver maple	Eastern cottonwood, Siouxland cottonwood, Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D12C2:						
Bygland, sandy substratum	15	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, late lilac, sargent crabapple, Amur maple, bur oak, common chokecherry, gray dogwood, northern whitecedar, silver buffaloberry	Black Hills spruce, Manchurian crabapple, Russian-olive, Siberian crabapple, blue spruce, eastern redcedar, nannyberry, sugar maple, white spruce, Austrian pine, common hackberry	American basswood, Siberian elm, eastern white pine, green ash, jack pine, red pine, silver maple	Eastern cottonwood, Siouxland cottonwood, Carolina poplar
Lindaas	10	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
Depressional soil	5	---	---	---	---	---
D13A:						
Langola, terrace	85	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, sargent crabapple, Amur maple, Siberian crabapple, common chokecherry, eastern redcedar, late lilac, silver buffaloberry	Blue spruce, nannyberry, northern whitecedar, sugar maple, Austrian pine, Black Hills spruce, Manchurian crabapple, Russian-olive, bur oak, white spruce, Norway spruce, Scotch pine, red pine	Green ash, eastern white pine, jack pine, Siberian elm	Silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D13A:						
Duelm	10	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
Hubbard	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D13B:						
Langola, terrace	85	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, sargent crabapple, Amur maple, Siberian crabapple, common chokecherry, eastern redcedar, late lilac, silver buffaloberry	Blue spruce, nannyberry, northern whitecedar, sugar maple, Austrian pine, Black Hills spruce, Manchurian crabapple, Russian-olive, bur oak, white spruce, Norway spruce, Scotch pine, red pine	Green ash, eastern white pine, jack pine, Siberian elm	Silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D13B:						
Hubbard	10	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Duelm	5	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
D15A:						
Seelyeville, drained	65	Common ninebark	Redosier dogwood, silky dogwood	Tamarack, black ash, green ash, tall purple willow	Golden willow, white willow	Imperial Carolina poplar
Markey, drained	25	Common ninebark	Redosier dogwood, silky dogwood	Tamarack, black ash, green ash, tall purple willow	Golden willow, white willow	Imperial Carolina poplar
Mineral soil, drained	10	Redosier dogwood	Silky dogwood	Tamarack, green ash, black ash, northern whitecedar	Eastern cottonwood, golden willow	Imperial Carolina poplar
D17A:						
Duelm	90	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D17A:						
Isan	8	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
Hubbard	2	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D18B:						
Braham, terrace	85	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, sargent crabapple, Amur maple, Siberian crabapple, common chokecherry, eastern redcedar, late lilac, silver buffaloberry	Blue spruce, nannyberry, northern whitecedar, sugar maple, Austrian pine, Black Hills spruce, Manchurian crabapple, Russian-olive, bur oak, white spruce, Norway spruce, Scotch pine, red pine	Green ash, eastern white pine, jack pine, Siberian elm	Silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D18B:						
Duelm	15	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
D19A:						
Fordum, frequently flooded	65	---	---	---	---	---
Winterfield, frequently flooded	25	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
Fordum, occasionally flooded	10	---	---	---	---	---
D20A:						
Isan	85	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
Isan, depressional	10	---	---	---	---	---
Duelm	5	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D21A:						
Isan, depressional	85	---	---	---	---	---
Isan	15	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
D23A:						
Southhaven	90	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood
Dorset	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Mosford	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D24A:						
Sedgeville, occasionally flooded	85	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
Elkriver, occasionally flooded	15	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
D25A:						
Soderville, terrace	90	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
Forada	10	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D26A:						
Foldahl, MAP >25	90	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, sargent crabapple, Amur maple, Siberian crabapple, common chokecherry, eastern redcedar, late lilac, silver buffaloberry	Blue spruce, nannyberry, northern whitecedar, sugar maple, Austrian pine, Black Hills spruce, Manchurian crabapple, Russian-olive, bur oak, white spruce, Norway spruce, Scotch pine, red pine	Green ash, eastern white pine, jack pine, Siberian elm	Silver maple, Siouxland cottonwood, eastern cottonwood
Hubbard	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Isan	5	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D27A:						
Dorset, loamy substratum	80	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Dorset	15	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Southhaven	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood
D28B:						
Urban land	75	---	---	---	---	---
Bygland, MAP >25	20	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, late lilac, sargent crabapple, Amur maple, bur oak, common chokecherry, gray dogwood, northern whitecedar, silver buffaloberry	Black Hills spruce, Manchurian crabapple, Russian-olive, Siberian crabapple, blue spruce, eastern redcedar, nannyberry, sugar maple, white spruce, Austrian pine, common hackberry	American basswood, Siberian elm, eastern white pine, green ash, jack pine, red pine, silver maple	Eastern cottonwood, Siouxland cottonwood, Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D28B:						
Bygland, sandy substratum	5	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, late lilac, sargent crabapple, Amur maple, bur oak, common chokecherry, gray dogwood, northern whitecedar, silver buffaloberry	Black Hills spruce, Manchurian crabapple, Russian-olive, Siberian crabapple, blue spruce, eastern redcedar, nannyberry, sugar maple, white spruce, Austrian pine, common hackberry	American basswood, Siberian elm, eastern white pine, green ash, jack pine, red pine, silver maple	Eastern cottonwood, Siouxland cottonwood, Carolina poplar
D29B:						
Urban land	70	---	---	---	---	---
Hubbard, bedrock substratum	20	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D29B:						
Hubbard	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Mosford	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D31A:						
Urban land	70	---	---	---	---	---
Duelm	20	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D31A:						
Hubbard	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
Isan	5	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
D33B:						
Urban land	70	---	---	---	---	---
Dorset	20	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D33B:						
Verndale, acid substratum	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Hubbard	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D33C:						
Urban land	70	---	---	---	---	---
Dorset	20	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Verndale, acid substratum	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D33C:						
Hubbard	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D34B:						
Urban land	75	---	---	---	---	---
Hubbard	20	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D34B:						
Mosford	5	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D35A:						
Elkriver, occasionally flooded	70	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
Fordum, occasionally flooded	20	---	---	---	---	---
Udipsamments	5	---	---	---	---	---
Winterfield, occasionally flooded	5	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D37F:						
Dorset, bedrock substratum	70	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Rock outcrop	20	---	---	---	---	---
Hubbard, bedrock substratum	10	Cotoneaster, western sandcherry	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
D40A:						
Kratka, thick solum	80	Nanking cherry	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian-olive, common hackberry	Norway spruce, green ash, red pine, golden willow	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D40A:						
Duelm	10	Peking cotoneaster, western sandcherry	Nanking cherry, Siberian peashrub, Harbin pear, blue spruce, common chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silver maple, eastern cottonwood, Siouxland cottonwood
Foldahl, MAP >25	10	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, sargent crabapple, Amur maple, Siberian crabapple, common chokecherry, eastern redcedar, late lilac, silver buffaloberry	Blue spruce, nannyberry, northern whitecedar, sugar maple, Austrian pine, Black Hills spruce, Manchurian crabapple, Russian-olive, bur oak, white spruce, Norway spruce, Scotch pine, red pine	Green ash, eastern white pine, jack pine, Siberian elm	Silver maple, Siouxland cottonwood, eastern cottonwood
D41C:						
Urban land	75	---	---	---	---	---
Waukon	20	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
D41C:						
Braham	5	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, sargent crabapple, Amur maple, Siberian crabapple, common chokecherry, eastern redcedar, late lilac, silver buffaloberry	Blue spruce, nannyberry, northern whitecedar, sugar maple, Austrian pine, Black Hills spruce, Manchurian crabapple, Russian-olive, bur oak, white spruce, Norway spruce, Scotch pine, red pine	Green ash, eastern white pine, jack pine, Siberian elm	Silver maple, Siouxland cottonwood, eastern cottonwood
D43A:						
Gonvick, terrace	85	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce	Norway spruce, green ash, eastern white pine, silver maple	Eastern cottonwood, Siouxland cottonwood
Braham	15	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, sargent crabapple, Amur maple, Siberian crabapple, common chokecherry, eastern redcedar, late lilac, silver buffaloberry	Blue spruce, nannyberry, northern whitecedar, sugar maple, Austrian pine, Black Hills spruce, Manchurian crabapple, Russian-olive, bur oak, white spruce, Norway spruce, Scotch pine, red pine	Green ash, eastern white pine, jack pine, Siberian elm	Silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L2B:						
Malardi	65	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Hawick	25	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Rasset	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Eden Prairie	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
L2C:						
Malardi	60	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L2C:						
Hawick	25	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Tomall	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Crowfork	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L2D:						
Malardi	55	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Hawick	30	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L2D:						
Tomall	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Crowfork	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L2E:						
Malardi	55	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Hawick	30	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Tomall	15	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L3A:						
Rasset	90	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Malardi	8	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Eden Prairie	2	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
L3B:						
Rasset	80	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Malardi	15	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L3B:						
Eden Prairie	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
L3C:						
Rasset	75	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Malardi	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Tomall	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Eden Prairie	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L4B:						
Crowfork	90	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Eden Prairie	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
L4C:						
Crowfork	90	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Eden Prairie	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
L4D:						
Crowfork	85	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L4D:						
Eden Prairie	15	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
L6A:						
Biscay	85	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Biscay, depressional	10	---	---	---	---	---
Mayer	5	Redosier dogwood	Common chokecherry, common lilac, American plum, silver buffaloberry	Black Hills spruce, eastern redcedar, blue spruce, white spruce, common hackberry, ponderosa pine	Green ash	Golden willow, eastern cottonwood, Siouxland cottonwood
L7A:						
Biscay, depressional	80	---	---	---	---	---
Biscay	15	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Mayer	5	Redosier dogwood	Common chokecherry, common lilac, American plum, silver buffaloberry	Black Hills spruce, eastern redcedar, blue spruce, white spruce, common hackberry, ponderosa pine	Green ash	Golden willow, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L8A:						
Darfur	95	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Dassel	5	---	---	---	---	---
L9A:						
Minnetonka	90	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Depressional soil	10	---	---	---	---	---
L10B:						
Kasota	80	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Eden Prairie	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Wet soil in swales	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L11B:						
Grays	90	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kasota	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Crowfork	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L13A:						
Klossner, drained	80	---	Redosier dogwood, silky dogwood	Black ash	Golden willow	---
Mineral soil, drained	15	Redosier dogwood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood
Houghton, drained	5	---	Redosier dogwood, silky dogwood	Black ash	Golden willow	---
L14A:						
Houghton, drained	80	---	Redosier dogwood, silky dogwood	Black ash	Golden willow	---
Klossner, drained	10	---	Redosier dogwood, silky dogwood	Black ash	Golden willow	---
Mineral soil, drained	10	Redosier dogwood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L17B:						
Angus	50	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Malardi	30	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Moon	10	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Cordova	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L18A:						
Shields	85	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L18A:						
Lerdal	10	Hedge cotoneaster	American cranberrybush, common chokecherry, common lilac, cotoneaster, American plum, silver buffaloberry	Black Hills spruce, Siberian crabapple, eastern redcedar, white spruce, Amur maple, Austrian pine, ponderosa pine, common hackberry, eastern white pine	Green ash	Silver maple, eastern cottonwood
Mazaska	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L19B:						
Moon	85	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Finchford	15	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L20B:						
Fedji, silty substratum	85	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L20B:						
Finchford	15	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L21A:						
Canisteo	80	Redosier dogwood	Common chokecherry, common lilac, American plum, silver buffaloberry	Black Hills spruce, eastern redcedar, blue spruce, white spruce, common hackberry, ponderosa pine	Green ash	Golden willow, eastern cottonwood, Siouxland cottonwood
Cordova	15	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Glencoe	5	---	---	---	---	---
L22C2:						
Lester, eroded	70	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Angus	15	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L22C2:						
Terril	12	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Hamel	3	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L22D2:						
Lester, eroded	80	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Terril	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L22D2:						
Hamel	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Ridgeton	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L22E:						
Lester, morainic	75	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Terril	15	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L22E:						
Hamel	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Ridgeton	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L22F:						
Lester, morainic	75	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Terril	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L22F:						
Ridgeton	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Hamel	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L23A:						
Cordova	85	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Glencoe	10	---	---	---	---	---
Nessel	5	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L24A:						
Glencoe, depressional	90	Redosier dogwood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L24A:						
Cordova	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L25A:						
Le Sueur	80	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Cordova	15	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Angus	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L26A:						
Shorewood	85	Hedge cotoneaster	American cranberrybush, common chokecherry, common lilac, cotoneaster, American plum, silver buffaloberry	Black Hills spruce, Siberian crabapple, eastern redcedar, white spruce, Amur maple, Austrian pine, ponderosa pine, common hackberry, eastern white pine	Green ash	Silver maple, eastern cottonwood
Minnetonka	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Good Thunder	5	Hedge cotoneaster	American cranberrybush, common chokecherry, common lilac, cotoneaster, American plum, silver buffaloberry	Black Hills spruce, Siberian crabapple, eastern redcedar, white spruce, Amur maple, Austrian pine, ponderosa pine, common hackberry, eastern white pine	Green ash	Silver maple
L26B:						
Shorewood	90	Hedge cotoneaster	American cranberrybush, Siberian peashrub, common chokecherry, common lilac, cotoneaster, American plum, silver buffaloberry	Black Hills spruce, Siberian crabapple, eastern redcedar, white spruce, Amur maple, Austrian pine, ponderosa pine, common hackberry, eastern white pine, red pine	Green ash, jack pine	Silver maple, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L26B:						
Good Thunder	5	Hedge cotoneaster	American cranberrybush, Siberian peashrub, common chokecherry, common lilac, cotoneaster, American plum, silver buffaloberry	Black Hills spruce, Siberian crabapple, eastern redcedar, white spruce, Amur maple, Austrian pine, Russian-olive, ponderosa pine, common hackberry, eastern white pine, red pine	Green ash, jack pine	Silver maple, eastern cottonwood
Minnetonka	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L26C2:						
Shorewood, eroded	95	Hedge cotoneaster	American cranberrybush, common chokecherry, common lilac, cotoneaster, American plum, silver buffaloberry	Black Hills spruce, Siberian crabapple, eastern redcedar, white spruce, Amur maple, Austrian pine, ponderosa pine, common hackberry, eastern white pine	Green ash	Silver maple, eastern cottonwood
Minnetonka	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L27A:						
Suckercreek, frequently flooded	85	---	---	---	---	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L27A:						
Suckercreek, occasionally flooded	10	---	---	---	---	---
Hanlon, occasionally flooded	5	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L28A:						
Suckercreek, occasionally flooded	80	---	---	---	---	---
Suckercreek, frequently flooded	10	---	---	---	---	---
Hanlon, occasionally flooded	10	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L29A:						
Hanlon, occasionally flooded	80	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Suckercreek, occasionally flooded	10	---	---	---	---	---
Suckercreek, frequently flooded	10	---	---	---	---	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L30A:						
Medo, surface drained	65	---	---	---	---	---
Medo, drained	20	---	Redosier dogwood, silky dogwood	Black ash	Golden willow	---
Mineral soil, drained	15	Redosier dogwood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood
L32D:						
Hawick	75	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Crowfork	15	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Tomall	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L32F:						
Hawick	75	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L32F:						
Crowfork	15	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Tomall	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L35A:						
Lerdal	80	Hedge cotoneaster	American cranberrybush, common chokecherry, common lilac, cotoneaster, American plum, silver buffaloberry	Black Hills spruce, Siberian crabapple, eastern redcedar, white spruce, Amur maple, Austrian pine, ponderosa pine, common hackberry, eastern white pine	Green ash	Silver maple, eastern cottonwood
Mazaska	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Cordova	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L35A:						
Le Sueur	5	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L36A:						
Hamel, overwash	50	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Hamel	43	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Terril	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Glencoe	2	Redosier dogwood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L37B:						
Angus, morainic	80	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Angus, eroded	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Le Sueur	5	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Cordova	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L38A:						
Rushriver, occasionally flooded	75	Redosier dogwood	Common chokecherry, common lilac, American plum, silver buffaloberry	Black Hills spruce, eastern redcedar, blue spruce, white spruce, common hackberry, ponderosa pine	Green ash	Golden willow, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L38A:						
Oshawa, frequently flooded	15	---	---	---	---	---
Minneiska, occasionally flooded	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry, blue spruce, gray dogwood	Eastern redcedar, white spruce, Black Hills spruce, common hackberry, ponderosa pine	Green ash, golden willow	Eastern cottonwood, Siouxland cottonwood
Algansee, occasionally flooded	5	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L39A:						
Minneiska, occasionally flooded	70	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry, blue spruce, gray dogwood	Eastern redcedar, white spruce, Black Hills spruce, common hackberry, ponderosa pine	Green ash, golden willow	Eastern cottonwood, Siouxland cottonwood
Rushriver, occasionally flooded	15	Redosier dogwood	Common chokecherry, common lilac, American plum, silver buffaloberry	Black Hills spruce, eastern redcedar, blue spruce, white spruce, common hackberry, ponderosa pine	Green ash	Golden willow, eastern cottonwood, Siouxland cottonwood
Oshawa, frequently flooded	10	---	---	---	---	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L39A:						
Algansee, occasionally flooded	5	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L40B:						
Angus	45	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kilkenny	40	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Lerdal	10	Hedge cotoneaster	American cranberrybush, common chokecherry, common lilac, cotoneaster, American plum, silver buffaloberry	Black Hills spruce, Siberian crabapple, eastern redcedar, white spruce, Amur maple, Austrian pine, ponderosa pine, common hackberry, eastern white pine	Green ash	Silver maple, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L40B:						
Mazaska	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L41C2:						
Lester, eroded	45	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kilkenny, eroded	40	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Terril	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Derrynane	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L41D2:						
Lester, eroded	45	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kilkenny, eroded	35	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Terril	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Derrynane	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Ridgeton	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L41E:						
Lester	45	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kilkenny	40	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Terril	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Derrynane	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Ridgeton	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L41F:						
Lester	45	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kilkenny	35	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Ridgeton	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Terril	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Derrynane	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L42B:						
Kingsley	70	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Gotham	25	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Grays	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L42C:						
Kingsley	70	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Gotham	25	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L42C:						
Grays	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L42D:						
Kingsley	70	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Gotham	25	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Grays	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L42E:						
Kingsley	70	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Gotham	25	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Grays	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L42F:						
Kingsley	70	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Gotham	25	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L42F:						
Grays	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L43A:						
Brouillett, occasionally flooded	80	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry, blue spruce, gray dogwood	Eastern redcedar, white spruce, Black Hills spruce, common hackberry, ponderosa pine	Green ash, golden willow	Eastern cottonwood, Siouxland cottonwood
Minneiska, occasionally flooded	10	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry, blue spruce, gray dogwood	Eastern redcedar, white spruce, Black Hills spruce, common hackberry, ponderosa pine	Green ash, golden willow	Eastern cottonwood, Siouxland cottonwood
Rushriver, occasionally flooded	10	Redosier dogwood	Common chokecherry, common lilac, American plum, silver buffaloberry	Black Hills spruce, eastern redcedar, blue spruce, white spruce, common hackberry, ponderosa pine	Green ash	Golden willow, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L44A:						
Nessel	85	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Cordova	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Angus	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L45A:						
Dundas	65	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Cordova	25	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L45A:						
Nessel	5	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Glencoe	5	---	---	---	---	---
L46A:						
Tomall	80	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Rasset	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Malardi	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
L47A:						
Eden Prairie	85	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L47A:						
Malardi	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Rasset	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
L47B:						
Eden Prairie	80	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Malardi	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Rasset	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L47C:						
Eden Prairie	70	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Malardi	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Rasset	10	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Hawick	10	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L49A:						
Klossner, surface drained	65	---	---	---	---	---
Klossner, drained	20	---	Redosier dogwood, silky dogwood	Black ash	Golden willow	---
Mineral soil, drained	15	Redosier dogwood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood
L50A:						
Houghton, surface drained	40	---	---	---	---	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L50A:						
Muskego, surface drained	40	---	---	---	---	---
Klossner, drained	10	---	Redosier dogwood, silky dogwood	Black ash	Golden willow	---
Mineral soil, drained	10	Redosier dogwood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood
L52C:						
Urban land	75	---	---	---	---	---
Lester	20	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kingsley	5	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
L52E:						
Urban land	75	---	---	---	---	---
Lester	20	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L52E:						
Kingsley	5	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
L53B:						
Urban land	70	---	---	---	---	---
Moon	20	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Lester	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L54A:						
Urban land	70	---	---	---	---	---
Dundas	20	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L54A:						
Nessel	10	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L55B:						
Urban land	70	---	---	---	---	---
Malardi	20	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Rasset	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Eden Prairie	5	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
L55C:						
Urban land	70	---	---	---	---	---
Malardi	20	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L55C:						
Hawick	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
Crowfork	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L58B:						
Koronis	60	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kingsley	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Forestcity	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L58B:						
Gotham	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L58C2:						
Koronis, eroded	55	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kingsley, eroded	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Forestcity	15	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Gotham	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L58D2:						
Koronis, eroded	55	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kingsley, eroded	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Forestcity	15	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Gotham	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L58E:						
Koronis	55	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L58E:						
Kingsley	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Forestcity	15	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Gotham	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---
L59A:						
Forestcity	70	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Lundlake, depressional	25	Redosier dogwood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood
Marcellon	5	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L60B:						
Angus	65	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Moon	30	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Hamel	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L61C2:						
Lester, eroded	60	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Metea, eroded	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L61C2:						
Terril	12	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Hamel	3	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L61D2:						
Lester, eroded	55	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Metea, eroded	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L61D2:						
Terril	12	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Ridgeton	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Hamel	3	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L61E:						
Lester	55	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L61E:						
Metea	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Terril	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Hamel	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Ridgeton	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L62B:						
Koronis	55	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kingsley	20	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Malardi	20	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Forestcity	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L62C2:						
Koronis, eroded	40	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L62C2:						
Kingsley, eroded	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	silver maple, eastern cottonwood
Malardi, eroded	25	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Forestcity	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L62D2:						
Koronis, eroded	40	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kingsley, eroded	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L62D2:						
Malardi, eroded	25	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Forestcity	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L62E:						
Koronis	40	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Kingsley	25	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Malardi	25	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L62E:						
Forestcity	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L64A:						
Tadkee	50	---	---	---	---	---
Tadkee, depressional	36	---	---	---	---	---
Better drained soil	8	---	Tatarian honeysuckle, common lilac, redosier dogwood	Eastern arborvitae, white spruce, Amur maple, blue spruce	Austrian pine, eastern white pine, common hackberry, green ash	Silver maple
Granby	4	---	---	---	---	---
Less sandy soil	2	---	---	---	---	---
L70C2:						
Lester, eroded	60	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Malardi, eroded	25	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L70C2:						
Terril	12	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Hamel	3	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L70D2:						
Lester, eroded	55	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Malardi, eroded	25	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Terril	12	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L70D2:						
Ridgeton	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Hamel	3	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L70E:						
Lester	55	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Malardi	25	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	Green ash, silver maple	Eastern cottonwood
Terril	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L70E:						
Hamel	5	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Ridgeton	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
L71C:						
Metea	80	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood
Lester	15	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Moon	5	Hedge cotoneaster	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine, green ash	Silver maple, eastern cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L72A:						
Lundlake, depressional--	90	Redosier dogwood----	Silky dogwood-------	Green ash, northern whitecedar	Golden willow-------	Eastern cottonwood
Forestcity----------	10	Nanking cherry------	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L110E:						
Lester----------	50	Nanking cherry------	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, Siberian peashrub, common lilac	Black Hills spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash, honeylocust, jack pine	Silver maple, eastern cottonwood, quaking aspen, Siouxland cottonwood, Carolina poplar
Ridgeton----------	30	Nanking cherry------	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, Siberian peashrub, common lilac	Black Hills spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash, honeylocust, jack pine	Silver maple, eastern cottonwood, quaking aspen, Siouxland cottonwood, Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L110E:						
Cokato	10	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, Siberian peashrub, common lilac	Black Hills spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash, honeylocust, jack pine	Silver maple, eastern cottonwood, quaking aspen, Siouxland cottonwood, Carolina poplar
Belview	6	American plum, common lilac	Siberian peashrub, Black Hills spruce, common hackberry, eastern redcedar	Green ash, ponderosa pine, honeylocust	Eastern cottonwood	---
Hamel	2	---	American plum	Amur maple, redosier dogwood, eastern arborvitae, white spruce, common hackberry, tall purple willow	Golden willow	Green ash, silver maple, eastern cottonwood
Terril	2	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, Siberian peashrub, common lilac	Black Hills spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash, honeylocust, jack pine	Silver maple, eastern cottonwood, quaking aspen, Siouxland cottonwood, Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L110F:						
Lester	55	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, Siberian peashrub, common lilac	Black Hills spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash, honeylocust, jack pine	Silver maple, eastern cottonwood, quaking aspen, Siouxland cottonwood, Carolina poplar
Ridgeton	30	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, Siberian peashrub, common lilac	Black Hills spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash, honeylocust, jack pine	Silver maple, eastern cottonwood, quaking aspen, Siouxland cottonwood, Carolina poplar
Cokato	8	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, Siberian peashrub, common lilac	Black Hills spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash, honeylocust, jack pine	Silver maple, eastern cottonwood, quaking aspen, Siouxland cottonwood, Carolina poplar
Belview	4	American plum, common lilac	Siberian peashrub, Black Hills spruce, common hackberry, eastern redcedar	Green ash, ponderosa pine, honeylocust	Eastern cottonwood	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L110F:						
Terril	2	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, Siberian peashrub, common lilac	Black Hills spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash, honeylocust, jack pine	Silver maple, eastern cottonwood, quaking aspen, Siouxland cottonwood, Carolina poplar
L131A:						
Litchfield	85	---	Nanking cherry, Siberian peashrub, common chokecherry, redosier dogwood, sargent crabapple, silver buffaloberry, American plum, common lilac	Black Hills spruce, Norway spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry, red pine	American basswood, Austrian pine, eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Darfur	10	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Crowfork	5	---	American plum, common chokecherry, common lilac, sargent crabapple, silver buffaloberry	Black Hills spruce, eastern redcedar, ponderosa pine, white spruce, Austrian pine, green ash, silver maple	Eastern white pine, Scotch pine, eastern cottonwood	---

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
L132A:						
Hamel	50	Nanking cherry	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Glencoe, depressional	30	Redosier dogwood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood
Hamel, overwash	15	---	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine, northern red oak, green ash	Silver maple, eastern cottonwood, Siouxland cottonwood
Terril	5	Nanking cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	Black Hills spruce, blue spruce, eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	Green ash	Silver maple, eastern cottonwood, Siouxland cottonwood

Table 11.--Windbreak Suitability Groups

(Suitable shrubs and trees with their mature heights are listed in table 10. Absence of an entry indicates that a windbreak suitability group is not assigned)

Map symbol and component name	Pct. of map unit	Windbreak suitability group
D1B:		
Anoka, terrace	55	7
Zimmerman, terrace	40	7
Kost	5	7
D1C:		
Anoka, terrace	45	7
Zimmerman, terrace	45	7
Kost	10	7
D2A:		
Elkriver, rarely flooded	85	1
Mosford, rarely flooded	10	7
Elkriver, occasionally flooded	5	1
D3A:		
Elkriver, occasionally flooded	80	1
Fordum, frequently flooded	15	10
Winterfield, occasionally flooded	5	1
D4A:		
Dorset	90	6G
Verndale, acid substratum	8	6G
Almora	2	6G
D4B:		
Dorset	85	6G
Verndale, acid substratum	10	6G
Almora	5	6G
D4C:		
Dorset	75	6G
Verndale, acid substratum	15	6G
Almora	10	6G

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
D5B:		
Dorset	65	6G
Two Inlets	25	7
Verndale, acid substratum	5	6G
Southhaven	5	3
D5C:		
Dorset	55	6G
Two Inlets	30	7
Southhaven	10	3
Verndale, acid substratum	5	6G
D5D:		
Dorset	50	6G
Two Inlets	35	7
Southhaven	10	3
Verndale, acid substratum	5	6G
D6A:		
Verndale, acid substratum	90	6G
Dorset	7	6G
Hubbard	3	7
D6B:		
Verndale, acid substratum	85	6G
Dorset	10	6G
Hubbard	5	7
D6C:		
Verndale, acid substratum	80	7
Dorset	15	6G
Hubbard	5	7
D7A:		
Hubbard	95	7
Mosford	5	7
D7B:		
Hubbard	90	7
Mosford	10	7

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
D7C:		
Hubbard	80	7
Sandberg	10	7
Mosford	10	7
D8B:		
Sandberg	95	7
Arvilla, MAP >25	5	6G
D8C:		
Sandberg	80	7
Corliss	15	7
Southhaven	5	3
D8D:		
Sandberg	80	7
Corliss	10	7
Southhaven	10	3
D8E:		
Sandberg	80	7
Corliss	10	7
Southhaven	10	3
D10A:		
Forada	95	2
Depressional soil	5	10
D11A:		
Lindaas	80	2
Lindaas, sandy substratum	10	2
Depressional soil	10	10
D12B:		
Bygland, MAP >25	70	4
Bygland, sandy substratum	15	4
Lindaas	10	2
Depressional soil	5	10
D12C2:		
Bygland, MAP >25	70	4
Bygland, sandy substratum	15	4

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
D12C2:		
Lindaas	10	2
Depressional soil	5	10
D13A:		
Langola, terrace	85	5
Duelm	10	1
Hubbard	5	7
D13B:		
Langola, terrace	85	5
Hubbard	10	7
Duelm	5	1
D15A:		
Seelyeville, drained	65	2H
Markey, drained	25	2H
Mineral soil, drained	10	2
D16A:		
Seelyeville, ponded	45	10
Markey, ponded	45	10
Mineral soil, ponded	10	10
D17A:		
Duelm	90	1
Isan	8	2
Hubbard	2	7
D18B:		
Braham, terrace	85	5
Duelm	15	1
D19A:		
Fordum, frequently flooded	65	10
Winterfield, frequently flooded	25	1
Fordum, occasionally flooded	10	10
D20A:		
Isan	85	2
Isan, depressional	10	10
Duelm	5	1

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
D21A:		
Isan, depressional	85	10
Isan	15	2
D23A:		
Southhaven	90	3
Dorset	5	6G
Mosford	5	7
D24A:		
Sedgeville, occasionally flooded	85	2
Elkriver, occasionally flooded	15	1
D25A:		
Soderville, terrace	90	1
Forada	10	2
D26A:		
Foldahl, MAP >25	90	5
Hubbard	5	7
Isan	5	2
D27A:		
Dorset, loamy substratum	80	6G
Dorset	15	6G
Southhaven	5	3
D28B:		
Urban land	75	---
Bygland, MAP >25	20	4
Bygland, sandy substratum	5	4
D29B:		
Urban land	70	---
Hubbard, bedrock substratum	20	7
Hubbard	5	7
Mosford	5	7
D30A:		
Seelyeville, surface drained	45	10
Markey, surface drained	45	10

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
D30A:		
Mineral soil, surface drained	10	10
D31A:		
Urban land	70	---
Duelm	20	1
Hubbard	5	7
Isan	5	2
D33B:		
Urban land	70	---
Dorset	20	6G
Verndale, acid substratum	5	6G
Hubbard	5	7
D33C:		
Urban land	70	---
Dorset	20	6G
Verndale, acid substratum	5	6G
Hubbard	5	7
D34B:		
Urban land	75	---
Hubbard	20	7
Mosford	5	7
D35A:		
Elkriver, occasionally flooded	70	1
Fordum, occasionally flooded	20	10
Udipsamments	5	
Winterfield, occasionally flooded	5	1
D37F:		
Dorset, bedrock substratum	70	6G
Rock Outcrop	20	
Hubbard, bedrock substratum	10	7

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
D40A:		
Kratka, thick solum	80	2
Duelm	10	1
Foldahl, MAP >25	10	5
D41C:		
Urban land	75	---
Waukon	20	3
Braham	5	5
D43A:		
Gonvick, terrace	85	3
Braham	15	5
GP.		
Pits, gravel- Udipsamments		
L2B:		
Malardi	65	6G
Hawick	25	7
Rasset	5	6G
Eden Prairie	5	6G
L2C:		
Malardi	60	6G
Hawick	25	7
Tomall	10	3
Crowfork	5	7
L2D:		
Malardi	55	6G
Hawick	30	7
Tomall	10	3
Crowfork	5	7
L2E:		
Malardi	55	6G
Hawick	30	7
Tomall	15	3
L3A:		
Rasset	90	6G
Malardi	8	6G
Eden Prairie	2	6G

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L3B:		
Rasset	80	6G
Malardi	15	6G
Eden Prairie	5	6G
L3C:		
Rasset	75	6G
Malardi	10	6G
Tomall	10	3
Eden Prairie	5	6G
L4B:		
Crowfork	90	7
Eden Prairie	10	6G
L4C:		
Crowfork	90	7
Eden Prairie	10	6G
L4D:		
Crowfork	85	7
Eden Prairie	15	6G
L6A:		
Biscay	85	2
Biscay, depressional	10	10
Mayer	5	2K
L7A:		
Biscay, depressional	80	10
Biscay	15	2
Mayer	5	2K
L8A:		
Darfur	95	2
Dassel	5	10
L9A:		
Minnetonka	90	2
Depressional soil	10	10
L10B:		
Kasota	80	6G
Eden Prairie	10	6G
Wet soil in swales	10	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L11B:		
Grays	90	3
Kasota	5	6G
Crowfork	5	7
L12A:		
Muskego, frequently flooded	30	10
Blue Earth, frequently flooded	30	10
Houghton, frequently flooded	30	10
Oshawa, frequently flooded	10	10
L13A:		
Klossner, drained	80	2H
Mineral soil, drained	15	2
Houghton, drained	5	2H
L14A:		
Houghton, drained	80	2H
Klossner, drained	10	2H
Mineral soil, drained	10	2
L15A:		
Klossner, ponded	30	10
Okoboji, ponded	30	10
Glencoe, ponded	30	10
Houghton, ponded	10	10
L16A:		
Muskego, ponded	30	10
Blue Earth, ponded	30	10
Houghton, ponded	30	10
Klossner, ponded	10	10
L17B:		
Angus	50	3
Malardi	30	6G
Moon	10	5
Cordova	10	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L18A:		
Shields	85	2
Lerdal	10	4
Mazaska	5	2
L19B:		
Moon	85	5
Finchford	15	7
L20B:		
Fedji, silty substratum	85	5
Finchford	15	7
L21A:		
Canisteo	80	2K
Cordova	15	2
Glencoe	5	10
L22C2:		
Lester, eroded	70	3
Angus	15	3
Terril	12	3
Hamel	3	2
L22D2:		
Lester, eroded	80	3
Terril	10	3
Hamel	5	2
Ridgeton	5	3
L22E:		
Lester, morainic	75	3
Terril	15	3
Hamel	5	2
Ridgeton	5	3
L22F:		
Lester, morainic	75	3
Terril	10	3
Ridgeton	10	3
Hamel	5	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L23A:		
Cordova	85	2
Glencoe	10	10
Nessel	5	1
L24A:		
Glencoe, depressional	90	2
Cordova	10	2
L25A:		
Le Sueur	80	1
Cordova	15	2
Angus	5	3
L26A:		
Shorewood	85	4
Minnetonka	10	2
Good Thunder	5	4
L26B:		
Shorewood	90	4
Good Thunder	5	4
Minnetonka	5	2
L26C2:		
Shorewood, eroded	95	4
Minnetonka	5	2
L27A:		
Suckercreek, frequently flooded	85	10
Suckercreek, occasionally flooded	10	10
Hanlon, occasionally flooded	5	1
L28A:		
Suckercreek, occasionally flooded	80	10
Suckercreek, frequently flooded	10	10
Hanlon, occasionally flooded	10	1
L29A:		
Hanlon, occasionally flooded	80	1
Suckercreek, occasionally flooded	10	10

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L29A:		
Suckercreek, frequently flooded	10	10
L30A:		
Medo, surface drained	65	10
Medo, drained	20	2H
Mineral soil, drained	15	2
L31A:		
Medo, ponded	30	10
Dassel, ponded	30	10
Biscay, ponded	30	10
Houghton, ponded	5	10
Muskego, ponded	5	10
L32D:		
Hawick	75	7
Crowfork	15	7
Tomall	10	3
L32F:		
Hawick	75	7
Crowfork	15	7
Tomall	10	3
L35A:		
Lerdal	80	4
Mazaska	10	2
Cordova	5	2
Le Sueur	5	1
L36A:		
Hamel, overwash	50	1
Hamel	43	2
Terril	5	3
Glencoe	2	2
L37B:		
Angus, morainic	80	3
Angus, eroded	10	3
Le Sueur	5	1
Cordova	5	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L38A:		
Rushriver, occasionally flooded	75	2K
Oshawa, frequently flooded	15	10
Minneiska, occasionally flooded	5	1K
Algansee, occasionally flooded	5	1
L39A:		
Minneiska, occasionally flooded	70	1K
Rushriver, occasionally flooded	15	2K
Oshawa, frequently flooded	10	10
Algansee, occasionally flooded	5	1
L40B:		
Angus	45	3
Kilkenny	40	3
Lerdal	10	4
Mazaska	5	2
L41C2:		
Lester, eroded	45	3
Kilkenny, eroded	40	3
Terril	10	3
Derrynane	5	2
L41D2:		
Lester, eroded	45	3
Kilkenny, eroded	35	3
Terril	10	3
Derrynane	5	2
Ridgeton	5	3
L41E:		
Lester	45	3
Kilkenny	40	3
Terril	5	3

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L41E:		
Derrynane	5	2
Ridgeton	5	3
L41F:		
Lester	45	3
Kilkenny	35	3
Ridgeton	10	3
Terril	5	3
Derrynane	5	2
L42B:		
Kingsley	70	5
Gotham	25	7
Grays	5	3
L42C:		
Kingsley	70	5
Gotham	25	7
Grays	5	3
L42D:		
Kingsley	70	5
Gotham	25	7
Grays	5	3
L42E:		
Kingsley	70	5
Gotham	25	7
Grays	5	3
L42F:		
Kingsley	70	5
Gotham	25	7
Grays	5	3
L43A:		
Brouillett, occasionally flooded	80	1K
Minneiska, occasionally flooded	10	1K
Rushriver, occasionally flooded	10	2K

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L44A:		
Nessel	85	1
Cordova	10	2
Angus	5	3
L45A:		
Dundas	65	1
Cordova	25	2
Nessel	5	1
Glencoe	5	10
L46A:		
Tomall	80	3
Rasset	10	6G
Malardi	10	6G
L47A:		
Eden Prairie	85	6G
Malardi	10	6G
Rasset	5	6G
L47B:		
Eden Prairie	80	6G
Malardi	10	6G
Rasset	10	6G
L47C:		
Eden Prairie	70	6G
Malardi	10	6G
Rasset	10	6G
Hawick	10	7
L49A:		
Klossner, surface drained	65	10
Klossner, drained	20	2H
Mineral soil, drained	15	2
L50A:		
Houghton, surface drained	40	10
Muskego, surface drained	40	10
Klossner, drained	10	2H
Mineral soil, drained	10	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L52C:		
Urban land	75	---
Lester	20	3
Kingsley	5	5
L52E:		
Urban land	75	---
Lester	20	3
Kingsley	5	5
L53B:		
Urban land	70	---
Moon	20	5
Lester	10	3
L54A:		
Urban land	70	---
Dundas	20	1
Nessel	10	1
L55B:		
Urban land	70	---
Malardi	20	6G
Rasset	5	6G
Eden Prairie	5	6G
L55C:		
Urban land	70	---
Malardi	20	6G
Hawick	5	7
Crowfork	5	7
L56A:		
Muskego, frequently flooded	45	10
Klossner, frequently flooded	45	10
Suckercreek, frequently flooded	10	10
L58B:		
Koronis	60	3
Kingsley	25	5
Forestcity	10	2
Gotham	5	7

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L58C2:		
Koronis, eroded	55	3
Kingsley, eroded	25	5
Forestcity	15	2
Gotham	5	7
L58D2:		
Koronis, eroded	55	3
Kingsley, eroded	25	5
Forestcity	15	2
Gotham	5	7
L58E:		
Koronis	55	3
Kingsley	25	5
Forestcity	15	2
Gotham	5	7
L59A:		
Forestcity	70	2
Lundlake, depressional	25	2
Marcellon	5	1
L60B:		
Angus	65	3
Moon	30	5
Hamel	5	2
L61C2:		
Lester, eroded	60	3
Metea, eroded	25	5
Terril	12	3
Hamel	3	2
L61D2:		
Lester, eroded	55	3
Metea, eroded	25	5
Terril	12	3
Ridgeton	5	3
Hamel	3	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L61E:		
Lester	55	3
Metea	25	5
Terril	10	3
Hamel	5	2
Ridgeton	5	3
L62B:		
Koronis	55	3
Kingsley	20	5
Malardi	20	6G
Forestcity	5	2
L62C2:		
Koronis, eroded	40	3
Kingsley, eroded	25	5
Malardi, eroded	25	6G
Forestcity	10	2
L62D2:		
Koronis, eroded	40	3
Kingsley, eroded	25	5
Malardi, eroded	25	6G
Forestcity	10	2
L62E:		
Koronis	40	3
Kingsley	25	5
Malardi	25	6G
Forestcity	10	2
L64A:		
Tadkee	50	10
Tadkee, depressional	36	10
Better drained soil	8	1
Granby	4	10
Less sandy soil	2	10
L70C2:		
Lester, eroded	60	3
Malardi, eroded	25	6G

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L70C2:		
Terril	12	3
Hamel	3	2
L70D2:		
Lester, eroded	55	3
Malardi, eroded	25	6G
Terril	12	3
Ridgeton	5	3
Hamel	3	2
L70E:		
Lester	55	3
Malardi	25	6G
Terril	10	3
Hamel	5	2
Ridgeton	5	3
L71C:		
Metea	80	5
Lester	15	3
Moon	5	5
L72A:		
Lundlake, depressional	90	2
Forestcity	10	2
L110E:		
Lester	50	3
Ridgeton	30	3
Cokato	10	3
Belview	6	8
Hamel	2	2
Terril	2	3
L110F:		
Lester	55	3
Ridgeton	30	3
Cokato	8	3
Belview	4	8
Terril	2	3
Hamel	1	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	Windbreak suitability group
L131A:		
Litchfield	85	1
Darfur	10	2
Crowfork	5	7
L132A:		
Hamel	50	2
Glencoe, depressional	30	2
Hamel, overwash	15	1
Terril	5	3
M-W.		
Water, miscellaneous		
U1A.		
Urban land-Udorthents, wet substratum		
U2A.		
Udorthents, wet substratum		
U3B.		
Udorthents (cut and fill land)		
U4A.		
Urban land-Udipsamments (cut and fill land)		
U5A.		
Urban land-Udorthents, wet substratum		
U6B.		
Urban land-Udorthents (cut and fill land)		
W.		
Water		

Table 12a.--Recreational Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D1B:							
Anoka, terrace------	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.96	Too sandy	0.96	Too sandy	0.96
						Slope	0.12
Zimmerman, terrace--	40	Very limited		Very limited		Very limited	
		Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
						Slope	0.50
Kost----------	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.96	Too sandy	0.96	Too sandy	0.96
						Slope	0.50
D1C:							
Anoka, terrace------	45	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.96	Too sandy	0.96	Slope	1.00
		Slope	0.04	Slope	0.04	Too sandy	0.96
Zimmerman, terrace--	45	Very limited		Very limited		Very limited	
		Too sandy	1.00	Too sandy	1.00	Slope	1.00
						Too sandy	1.00
Kost----------	10	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.96	Too sandy	0.96	Slope	1.00
						Too sandy	0.96
D2A:							
Elkriver, rarely flooded----------	85	Very limited		Not limited		Not limited	
		Flooding	1.00				
Mosford, rarely flooded----------	10	Very limited		Not limited		Not limited	
		Flooding	1.00				
Elkriver, occasionally flooded----------	5	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60
D3A:							
Elkriver, occasionally flooded----------	80	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D3A:							
Fordum, frequently flooded	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
						Gravel content	0.05
Winterfield, occasionally flooded	5	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.96	Depth to saturated zone	0.98
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Too sandy	0.96
		Too sandy	0.96			Flooding	0.60
D4A:							
Dorset	90	Not limited		Not limited		Not limited	
Verndale, acid substratum	8	Not limited		Not limited		Not limited	
Almora	2	Not limited		Not limited		Not limited	
D4B:							
Dorset	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Verndale, acid substratum	10	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Almora	5	Not limited		Not limited		Not limited	
D4C:							
Dorset	75	Not limited		Not limited		Very limited	
						Slope	1.00
Verndale, acid substratum	15	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Almora	10	Not limited		Not limited		Not limited	
D5B:							
Dorset	65	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Two Inlets	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
						Slope	0.50
						Gravel content	0.22
Verndale, acid substratum	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Southhaven	5	Not limited		Not limited		Not limited	

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
D5C:							
Dorset	55	Not limited		Not limited		Very limited	
						Slope	1.00
Two Inlets	30	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.87	Too sandy	0.87	Slope	1.00
		Slope	0.04	Slope	0.04	Too sandy	0.87
						Gravel content	0.22
Southhaven	10	Not limited		Not limited		Not limited	
Verndale, acid substratum	5	Not limited		Not limited		Very limited	
						Slope	1.00
D5D:							
Dorset	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.84	Slope	0.84	Slope	1.00
Two Inlets	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
						Gravel content	0.22
Southhaven	10	Not limited		Not limited		Not limited	
Verndale, acid substratum	5	Not limited		Not limited		Very limited	
						Slope	1.00
D6A:							
Verndale, acid substratum	90	Not limited		Not limited		Not limited	
Dorset	7	Not limited		Not limited		Not limited	
Hubbard	3	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
D6B:							
Verndale, acid substratum	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Dorset	10	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
						Slope	0.12
D6C:							
Verndale, acid substratum	80	Not limited		Not limited		Very limited	
						Slope	1.00
Dorset	15	Not limited		Not limited		Very limited	
						Slope	1.00

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D6C:							
Hubbard	5	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.81	Too sandy	0.81	Slope	1.00
						Too sandy	0.81
D7A:							
Hubbard	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
Mosford	5	Not limited		Not limited		Not limited	
D7B:							
Hubbard	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
						Slope	0.12
Mosford	10	Not limited		Not limited		Not limited	
D7C:							
Hubbard	80	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.81	Too sandy	0.81	Slope	1.00
						Too sandy	0.81
Sandberg	10	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.77	Too sandy	0.77	Slope	1.00
		Slope	0.16	Slope	0.16	Gravel content	0.78
						Too sandy	0.77
Mosford	10	Not limited		Not limited		Not limited	
D8B:							
Sandberg	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.77	Too sandy	0.77	Gravel content	0.78
						Too sandy	0.77
						Slope	0.50
Arvilla, MAP >25	5	Not limited		Not limited		Not limited	
D8C:							
Sandberg	80	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.77	Too sandy	0.77	Slope	1.00
		Slope	0.04	Slope	0.04	Gravel content	0.78
						Too sandy	0.77
Corliss	15	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.87	Too sandy	0.87	Slope	1.00
		Slope	0.04	Slope	0.04	Too sandy	0.87
Southhaven	5	Not limited		Not limited		Not limited	
D8D:							
Sandberg	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
		Too sandy	0.77	Too sandy	0.77	Gravel content	0.78
						Too sandy	0.77
Corliss	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
Southhaven	10	Not limited		Not limited		Not limited	

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D8E:							
Sandberg	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.77	Too sandy	0.77	Gravel content	0.78
						Too sandy	0.77
Corliss	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
Southhaven	10	Not limited		Not limited		Somewhat limited	
						Slope	0.12
D10A:							
Forada	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Depressional soil	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
D11A:							
Lindaas	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
Lindaas, sandy substratum	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
Depressional soil	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
D12B:							
Bygland, MAP >25	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
						Slope	0.12
Bygland, sandy substratum	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
		Depth to saturated zone	0.03	Depth to saturated zone	0.02	Slope	0.12
						Depth to saturated zone	0.03

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D12B:							
Lindaas----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
Depressional soil---	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
D12C2:							
Bygland, MAP >25----	70	Somewhat limited		Somewhat limited		Very limited	
		Restricted permeability	0.43	Restricted permeability	0.43	Slope	1.00
						Restricted permeability	0.43
Bygland, sandy substratum---------	15	Somewhat limited		Somewhat limited		Very limited	
		Restricted permeability	0.43	Restricted permeability	0.43	Slope	1.00
		Depth to saturated zone	0.03	Depth to saturated zone	0.02	Restricted permeability	0.43
						Depth to saturated zone	0.03
Lindaas----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
Depressional soil---	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
D13A:							
Langola, terrace----	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.96	Too sandy	0.96	Too sandy	0.96
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
Duelm----------	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
Hubbard----------	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
D13B:							
Langola, terrace----	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.96	Too sandy	0.96	Too sandy	0.96
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
						Slope	0.12

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D13B:							
Hubbard	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
						Slope	0.12
Duelm	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
D15A:							
Seelyeville, drained	65	Not rated		Not rated		Not rated	
Markey, drained	25	Not rated		Not rated		Not rated	
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
D16A:							
Seelyeville, ponded	45	Not rated		Not rated		Not rated	
Markey, ponded	45	Not rated		Not rated		Not rated	
Mineral soil, ponded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
D17A:							
Duelm	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
Isan	8	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Hubbard	2	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
						Slope	0.12
D18B:							
Braham, terrace	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
						Slope	0.12
Duelm	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
D19A:							
Fordum, frequently flooded	65	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
						Gravel content	0.05

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D19A:							
Winterfield, frequently flooded	25	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Too sandy	0.96	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Too sandy	0.96	Flooding	0.40	Too sandy	0.96
Fordum, occasionally flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
						Gravel content	0.05
D20A:							
Isan	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Isan, depressional	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Duelm	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
D21A:							
Isan, depressional	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Isan	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
D23A:							
Southhaven	90	Not limited		Not limited		Not limited	
Dorset	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Mosford	5	Not limited		Not limited		Not limited	
D24A:							
Sedgeville, occasionally flooded	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
						Gravel content	0.06
Elkriver, occasionally flooded	15	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D25A:							
Soderville, terrace	90	Somewhat limited Depth to saturated zone Too sandy	 0.39 0.37	Somewhat limited Too sandy Depth to saturated zone	 0.37 0.19	Somewhat limited Depth to saturated zone Too sandy	 0.39 0.37
Forada	10	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00
D26A:							
Foldahl, MAP >25	90	Somewhat limited Too sandy	 0.87	Somewhat limited Too sandy	 0.87	Somewhat limited Too sandy	 0.87
Hubbard	5	Somewhat limited Too sandy	 0.81	Somewhat limited Too sandy	 0.81	Somewhat limited Too sandy	 0.81
Isan	5	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00
D27A:							
Dorset, loamy substratum	80	Not limited		Not limited		Not limited	
Dorset	15	Not limited		Not limited		Not limited	
Southhaven	5	Not limited		Not limited		Not limited	
D28B:							
Urban land	75	Not rated		Not rated		Not rated	
Bygland, MAP >25	20	Somewhat limited Restricted permeability	 0.43	Somewhat limited Restricted permeability	 0.43	Somewhat limited Restricted permeability Slope	 0.43 0.12
Bygland, sandy substratum	5	Somewhat limited Restricted permeability Depth to saturated zone	 0.43 0.03	Somewhat limited Restricted permeability Depth to saturated zone	 0.43 0.02	Somewhat limited Restricted permeability Slope Depth to saturated zone	 0.43 0.12 0.03
D29B:							
Urban land	70	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	20	Somewhat limited Too sandy	 0.81	Somewhat limited Too sandy	 0.81	Somewhat limited Too sandy Slope	 0.81 0.12
Hubbard	5	Somewhat limited Too sandy	 0.81	Somewhat limited Too sandy	 0.81	Somewhat limited Too sandy Slope	 0.81 0.12
Mosford	5	Not limited		Not limited		Not limited	

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D30A:							
Seelyeville, surface drained	45	Not rated		Not rated		Not rated	
Markey, surface drained	45	Not rated		Not rated		Not rated	
Mineral soil, surface drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
D31A:							
Urban land	70	Not rated		Not rated		Not rated	
Duelm	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
						Slope	0.12
Isan	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
D33B:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Verndale, acid substratum	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Slope	0.88
						Too sandy	0.81
D33C:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Verndale, acid substratum	5	Not limited		Not limited		Very limited	
						Slope	1.00
Hubbard	5	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.81	Too sandy	0.81	Slope	1.00
		Slope	0.63	Slope	0.63	Too sandy	0.81
D34B:							
Urban land	75	Not rated		Not rated		Not rated	
Hubbard	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
						Slope	0.12

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
D34B:							
Mosford	5	Not limited		Not limited		Not limited	
D35A:							
Elkriver, occasionally flooded	70	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60
Fordum, occasionally flooded	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
						Gravel content	0.05
Udipsamments	5	Not rated		Not rated		Not rated	
Winterfield, occasionally flooded	5	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.96	Depth to saturated zone	0.98
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Too sandy	0.96
		Too sandy	0.96			Flooding	0.60
D37F:							
Dorset, bedrock substratum	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Rock outcrop	20	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
D40A:							
Kratka, thick solum	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.96	Too sandy	0.96	Too sandy	0.96
Duelm	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
Foldahl, MAP >25	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Too sandy	0.87
						Slope	0.03
D41C:							
Urban land	75	Not rated		Not rated		Not rated	
Waukon	20	Not limited		Not limited		Very limited	
						Slope	1.00

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D41C:							
Braham	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
						Slope	0.12
D43A:							
Gonvick, terrace	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
						Slope	0.03
Braham	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
						Slope	0.12
GP:							
Pits, gravel	80	Not rated		Not rated		Not rated	
Udipsamments	20	Not rated		Not rated		Not rated	
L2B:							
Malardi	65	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Hawick	25	Not limited		Not limited		Somewhat limited	
						Slope	0.50
						Gravel content	0.04
Rasset	5	Not limited		Not limited		Somewhat limited	
						Gravel content	0.04
Eden Prairie	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
L2C:							
Malardi	60	Not limited		Not limited		Very limited	
						Slope	1.00
Hawick	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
						Gravel content	0.04
Tomall	10	Not limited		Not limited		Not limited	
Crowfork	5	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.42	Too sandy	0.42	Slope	1.00
						Too sandy	0.42
L2D:							
Malardi	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.84	Slope	0.84	Slope	1.00
Hawick	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	0.04
Tomall	10	Not limited		Not limited		Not limited	
Crowfork	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.84	Slope	0.84	Slope	1.00
		Too sandy	0.42	Too sandy	0.42	Too sandy	0.42

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L2E:							
Malardi	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Hawick	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	0.04
Tomall	15	Not limited		Not limited		Not limited	
L3A:							
Rasset	90	Not limited		Not limited		Somewhat limited	
						Gravel content	0.04
Malardi	8	Not limited		Not limited		Not limited	
Eden Prairie	2	Not limited		Not limited		Not limited	
L3B:							
Rasset	80	Not limited		Not limited		Somewhat limited	
						Slope	0.12
						Gravel content	0.04
Malardi	15	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Eden Prairie	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
L3C:							
Rasset	75	Not limited		Not limited		Very limited	
						Slope	1.00
						Gravel content	0.04
Malardi	10	Not limited		Not limited		Very limited	
						Slope	1.00
Tomall	10	Not limited		Not limited		Not limited	
Eden Prairie	5	Not limited		Not limited		Very limited	
						Slope	1.00
L4B:							
Crowfork	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.42	Too sandy	0.42	Too sandy	0.42
						Slope	0.12
Eden Prairie	10	Not limited		Not limited		Not limited	
L4C:							
Crowfork	90	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.42	Too sandy	0.42	Slope	1.00
						Too sandy	0.42
Eden Prairie	10	Not limited		Not limited		Not limited	
L4D:							
Crowfork	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.42	Too sandy	0.42	Too sandy	0.42

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L4D:							
Eden Prairie	15	Not limited		Not limited		Not limited	
L6A:							
Biscay	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Biscay, depressional	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Mayer	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L7A:							
Biscay, depressional	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Biscay	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Mayer	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L8A:							
Darfur	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Dassel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L9A:							
Minnetonka	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
Depressional soil	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Restricted permeability	0.94	Restricted permeability	0.94	Restricted permeability	0.94
L10B:							
Kasota	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.15	Restricted permeability	0.15	Slope	0.50
						Restricted permeability	0.15

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L10B:							
Eden Prairie	10	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Wet soil in swales	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.94	Restricted permeability	0.94	Restricted permeability	0.94
L11B:							
Grays	90	Not limited		Not limited		Somewhat limited	
						Slope	0.88
Kasota	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.15	Restricted permeability	0.15	Slope	0.50
						Restricted permeability	0.15
Crowfork	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.42	Too sandy	0.42	Slope	0.88
						Too sandy	0.42
L12A:							
Muskego, frequently flooded	30	Not rated		Not rated		Not rated	
Blue Earth, frequently flooded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Ponding	1.00	Flooding	0.40	Ponding	1.00
Houghton, frequently flooded	30	Not rated		Not rated		Not rated	
Oshawa, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Ponding	1.00	Flooding	0.40	Ponding	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
L13A:							
Klossner, drained	80	Not rated		Not rated		Not rated	
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Houghton, drained	5	Not rated		Not rated		Not rated	
L14A:							
Houghton, drained	80	Not rated		Not rated		Not rated	
Klossner, drained	10	Not rated		Not rated		Not rated	

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L14A:							
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L15A:							
Klossner, ponded	30	Not rated		Not rated		Not rated	
Okoboji, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
Glencoe, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Houghton, ponded	10	Not rated		Not rated		Not rated	
L16A:							
Muskego, ponded	30	Not rated		Not rated		Not rated	
Blue Earth, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Houghton, ponded	30	Not rated		Not rated		Not rated	
Klossner, ponded	10	Not rated		Not rated		Not rated	
L17B:							
Angus	50	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Malardi	30	Not limited		Not limited		Somewhat limited	
						Slope	0.88
Moon	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
						Slope	0.12
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L18A:							
Shields	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L18A:							
Lerdal	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.94	Restricted permeability	0.94	Restricted permeability	0.94
		Depth to saturated zone	0.90	Depth to saturated zone	0.60	Depth to saturated zone	0.90
Mazaska	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
L19B:							
Moon	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
						Slope	0.12
Finchford	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Slope	0.88
						Too sandy	0.81
						Gravel content	0.22
L20B:							
Fedji, silty substratum	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.96	Too sandy	0.96	Too sandy	0.96
						Slope	0.72
Finchford	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Slope	0.88
						Too sandy	0.81
						Gravel content	0.22
L21A:							
Canisteo	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Cordova	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Glencoe	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L22C2:							
Lester, eroded	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Angus	15	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Terril	12	Not limited		Not limited		Somewhat limited	
						Slope	0.12

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L22C2:							
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L22D2:							
Lester, eroded	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	10	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
L22E:							
Lester, morainic	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	15	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
L22F:							
Lester, morainic	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	10	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Ridgeton	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L23A:							
Cordova	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L23A:							
Glencoe	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Nessel	5	Not limited		Not limited		Somewhat limited	
						Slope	0.03
L24A:							
Glencoe, depressional	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L25A:							
Le Sueur	80	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.78	Depth to saturated zone	0.99
						Slope	0.03
Cordova	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Angus	5	Not limited		Not limited		Somewhat limited	
						Slope	0.50
L26A:							
Shorewood	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Restricted permeability	0.60	Restricted permeability	0.60	Restricted permeability	0.60
Minnetonka	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
Good Thunder	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
		Depth to saturated zone	0.01			Slope	0.03
						Depth to saturated zone	0.01

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L26B:							
Shorewood----------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Restricted permeability	0.60	Restricted permeability	0.60	Restricted permeability	0.60
						Slope	0.50
Good Thunder--------	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
		Depth to saturated zone	0.01			Slope	0.03
						Depth to saturated zone	0.01
Minnetonka----------	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
L26C2:							
Shorewood, eroded---	95	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Restricted permeability	0.60	Restricted permeability	0.60	Depth to saturated zone	0.98
		Slope	0.04	Slope	0.04	Restricted permeability	0.60
Minnetonka----------	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
L27A:							
Suckercreek, frequently flooded	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
Suckercreek, occasionally flooded----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
Hanlon, occasionally flooded----------	5	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
L28A:							
Suckercreek, occasionally flooded----------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
L28A:							
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
Hanlon, occasionally flooded	10	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
L29A:							
Hanlon, occasionally flooded	80	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
Suckercreek, occasionally flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
L30A:							
Medo, surface drained	65	Not rated		Not rated		Not rated	
Medo, drained	20	Not rated		Not rated		Not rated	
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L31A:							
Medo, ponded	30	Not rated		Not rated		Not rated	
Dassel, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Biscay, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
Houghton, ponded	5	Not rated		Not rated		Not rated	
Muskego, ponded	5	Not rated		Not rated		Not rated	

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L32D:							
Hawick	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.50	Too sandy	0.50	Gravel content	0.78
						Too sandy	0.50
Crowfork	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.42	Too sandy	0.42	Too sandy	0.42
Tomall	10	Not limited		Not limited		Not limited	
L32F:							
Hawick	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.50	Too sandy	0.50	Gravel content	0.78
						Too sandy	0.50
Crowfork	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.42	Too sandy	0.42	Too sandy	0.42
Tomall	10	Not limited		Not limited		Not limited	
L35A:							
Lerdal	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.94	Restricted permeability	0.94	Restricted permeability	0.94
		Depth to saturated zone	0.90	Depth to saturated zone	0.60	Depth to saturated zone	0.90
Mazaska	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
Cordova	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Le Sueur	5	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.78	Depth to saturated zone	0.99
						Slope	0.12
L36A:							
Hamel, overwash	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Hamel	43	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
L36A:							
Terril	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Glencoe	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L37B:							
Angus, morainic	80	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Angus, eroded	10	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Le Sueur	5	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.78	Depth to saturated zone	0.99
						Slope	0.03
Cordova	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L38A:							
Rushriver, occasionally flooded	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
						Gravel content	0.50
Oshawa, frequently flooded	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Ponding	1.00	Flooding	0.40	Ponding	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
Minneiska, occasionally flooded	5	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
Algansee, occasionally flooded	5	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.87	Depth to saturated zone	0.98
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Too sandy	0.87
		Too sandy	0.87			Flooding	0.60

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L39A:							
Minneiska, occasionally flooded	70	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
Rushriver, occasionally flooded	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
						Gravel content	0.50
Oshawa, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Ponding	1.00	Flooding	0.40	Ponding	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
Algansee, occasionally flooded	5	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.87	Depth to saturated zone	0.98
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Too sandy	0.87
		Too sandy	0.87			Flooding	0.60
L40B:							
Angus	45	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Kilkenny	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
						Slope	0.12
Lerdal	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.94	Restricted permeability	0.94	Restricted permeability	0.94
		Depth to saturated zone	0.90	Depth to saturated zone	0.60	Depth to saturated zone	0.90
						Slope	0.03
Mazaska	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
L41C2:							
Lester, eroded	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L41C2:							
Kilkenny, eroded	40	Somewhat limited		Somewhat limited		Very limited	
		Restricted permeability	0.21	Restricted permeability	0.21	Slope	1.00
		Slope	0.04	Slope	0.04	Restricted permeability	0.21
Terril	10	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
L41D2:							
Lester, eroded	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Kilkenny, eroded	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Terril	10	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
L41E:							
Lester	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Kilkenny	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Terril	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
L41F:							
Lester	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L41F:							
Kilkenny	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Ridgeton	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
L42B:							
Kingsley	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.15	Restricted permeability	0.15	Slope	0.50
						Restricted permeability	0.15
						Gravel content	0.04
Gotham	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.57	Too sandy	0.57	Too sandy	0.57
						Slope	0.50
Grays	5	Not limited		Not limited		Not limited	
L42C:							
Kingsley	70	Somewhat limited		Somewhat limited		Very limited	
		Restricted permeability	0.15	Restricted permeability	0.15	Slope	1.00
		Slope	0.04	Slope	0.04	Restricted permeability	0.15
						Gravel content	0.04
Gotham	25	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.57	Too sandy	0.57	Slope	1.00
		Slope	0.04	Slope	0.04	Too sandy	0.57
Grays	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
L42D:							
Kingsley	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
						Gravel content	0.04
Gotham	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
		Too sandy	0.57	Too sandy	0.57	Too sandy	0.57
Grays	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L42E:							
Kingsley	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
						Gravel content	0.04
Gotham	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.57	Too sandy	0.57	Too sandy	0.57
Grays	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
L42F:							
Kingsley	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
						Gravel content	0.04
Gotham	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.57	Too sandy	0.57	Too sandy	0.57
Grays	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
L43A:							
Brouillett, occasionally flooded	80	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60
Minneiska, occasionally flooded	10	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
Rushriver, occasionally flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00			Flooding	0.60
						Gravel content	0.50
L44A:							
Nessel	85	Not limited		Not limited		Somewhat limited	
						Slope	0.03
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Angus	5	Not limited		Not limited		Somewhat limited	
						Slope	0.50

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L45A:							
Dundas	65	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Cordova	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Nessel	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Glencoe	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L46A:							
Tomall	80	Not limited		Not limited		Not limited	
Rasset	10	Not limited		Not limited		Somewhat limited	
						Gravel content	0.04
Malardi	10	Not limited		Not limited		Somewhat limited	
						Slope	0.12
L47A:							
Eden Prairie	85	Not limited		Not limited		Not limited	
Malardi	10	Not limited		Not limited		Not limited	
Rasset	5	Not limited		Not limited		Somewhat limited	
						Gravel content	0.04
L47B:							
Eden Prairie	80	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Malardi	10	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Rasset	10	Not limited		Not limited		Somewhat limited	
						Gravel content	0.04
L47C:							
Eden Prairie	70	Not limited		Not limited		Very limited	
						Slope	1.00
Malardi	10	Not limited		Not limited		Very limited	
						Slope	1.00
Rasset	10	Not limited		Not limited		Somewhat limited	
						Gravel content	0.04
Hawick	10	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
						Gravel content	0.04

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L49A:							
Klossner, surface drained	65	Not rated		Not rated		Not rated	
Klossner, drained	20	Not rated		Not rated		Not rated	
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L50A:							
Houghton, surface drained	40	Not rated		Not rated		Not rated	
Muskego, surface drained	40	Not rated		Not rated		Not rated	
Klossner, drained	10	Not rated		Not rated		Not rated	
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L52C:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Not limited		Not limited		Very limited	
						Slope	1.00
Kingsley	5	Somewhat limited		Somewhat limited		Very limited	
		Restricted permeability	0.15	Restricted permeability	0.15	Slope	1.00
						Restricted permeability	0.15
						Gravel content	0.04
L52E:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Kingsley	5	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
						Gravel content	0.04
L53B:							
Urban land	70	Not rated		Not rated		Not rated	
Moon	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
						Slope	0.12
Lester	10	Not limited		Not limited		Very limited	
						Slope	1.00

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L54A:							
Urban land----------	70	Not rated		Not rated		Not rated	
Dundas----------	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Nessel----------	10	Not limited		Not limited		Somewhat limited	
						Slope	0.03
L55B:							
Urban land----------	70	Not rated		Not rated		Not rated	
Malardi----------	20	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Rasset----------	5	Not limited		Not limited		Somewhat limited	
						Gravel content	0.04
Eden Prairie--------	5	Not limited		Not limited		Somewhat limited	
						Slope	0.50
L55C:							
Urban land----------	70	Not rated		Not rated		Not rated	
Malardi----------	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Hawick----------	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
						Gravel content	0.04
Crowfork----------	5	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.42	Too sandy	0.42	Slope	1.00
		Slope	0.04	Slope	0.04	Too sandy	0.42
L56A:							
Muskego, frequently flooded----------	45	Not rated		Not rated		Not rated	
Klossner, frequently flooded----------	45	Not rated		Not rated		Not rated	
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
L58B:							
Koronis----------	60	Not limited		Not limited		Somewhat limited	
						Slope	0.28
						Gravel content	0.04
Kingsley----------	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.15	Restricted permeability	0.15	Slope	0.28
						Restricted permeability	0.15
						Gravel content	0.04

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L58B:							
Forestcity----------	10	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Gotham----------	5	Somewhat limited Too sandy	0.57	Somewhat limited Too sandy	0.57	Somewhat limited Slope Too sandy	0.88 0.57
L58C2:							
Koronis, eroded-----	55	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Very limited Slope Gravel content	1.00 0.04
Kingsley, eroded----	25	Somewhat limited Restricted permeability Slope	0.15 0.04	Somewhat limited Restricted permeability Slope	0.15 0.04	Very limited Slope Restricted permeability Gravel content	1.00 0.15 0.04
Forestcity----------	15	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Gotham----------	5	Somewhat limited Too sandy Slope	0.57 0.16	Somewhat limited Too sandy Slope	0.57 0.16	Very limited Slope Too sandy	1.00 0.57
L58D2:							
Koronis, eroded-----	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.04
Kingsley, eroded----	25	Very limited Slope Restricted permeability	1.00 0.15	Very limited Slope Restricted permeability	1.00 0.15	Very limited Slope Restricted permeability Gravel content	1.00 0.15 0.04
Forestcity----------	15	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Gotham----------	5	Very limited Slope Too sandy	1.00 0.57	Very limited Slope Too sandy	1.00 0.57	Very limited Slope Too sandy	1.00 0.57
L58E:							
Koronis----------	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.04
Kingsley----------	25	Very limited Slope Restricted permeability	1.00 0.15	Very limited Slope Restricted permeability	1.00 0.15	Very limited Slope Restricted permeability Gravel content	1.00 0.15 0.04
Forestcity----------	15	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L58E:							
Gotham	5	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.57	Too sandy	0.57	Too sandy	0.57
L59A:							
Forestcity	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Lundlake, depressional	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Marcellon	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
						Gravel content	0.04
						Slope	0.03
L60B:							
Angus	65	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Moon	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
						Slope	0.12
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L61C2:							
Lester, eroded	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Metea, eroded	25	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.37	Too sandy	0.37	Slope	1.00
		Slope	0.04	Slope	0.04	Too sandy	0.37
Terril	12	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L61D2:							
Lester, eroded	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Metea, eroded	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L61D2:							
Terril	12	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L61E:							
Lester	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Metea	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
Terril	10	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
L62B:							
Koronis	55	Not limited		Not limited		Somewhat limited	
						Slope	0.28
						Gravel content	0.04
Kingsley	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.15	Restricted permeability	0.15	Slope	0.28
						Restricted permeability	0.15
						Gravel content	0.04
Malardi	20	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Forestcity	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L62C2:							
Koronis, eroded	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
						Gravel content	0.04
Kingsley, eroded	25	Somewhat limited		Somewhat limited		Very limited	
		Restricted permeability	0.15	Restricted permeability	0.15	Slope	1.00
		Slope	0.04	Slope	0.04	Restricted permeability	0.15
						Gravel content	0.04

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L62C2:							
Malardi, eroded-----	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Forestcity----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L62D2:							
Koronis, eroded-----	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
						Gravel content	0.04
Kingsley, eroded----	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
						Gravel content	0.04
Malardi, eroded-----	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
Forestcity----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L62E:							
Koronis----------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	0.04
Kingsley----------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
						Gravel content	0.04
Malardi----------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Forestcity----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L64A:							
Tadkee----------	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.89	Too sandy	0.89	Too sandy	0.89
Tadkee, depressional	36	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Too sandy	0.89	Too sandy	0.89	Too sandy	0.89
Better drained soil	8	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.46	Too sandy	0.46	Too sandy	0.46
		Depth to saturated zone	0.01			Slope	0.03
						Depth to saturated zone	0.01

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L64A:							
Granby	4	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Too sandy	0.89	Too sandy	0.89	Too sandy	0.89
Less sandy soil	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.89	Too sandy	0.89	Too sandy	0.89
L70C2:							
Lester, eroded	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Malardi, eroded	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Terril	12	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L70D2:							
Lester, eroded	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Malardi, eroded	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	12	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
L70E:							
Lester	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Malardi	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	10	Not limited		Not limited		Somewhat limited	
						Slope	0.50

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L70E:							
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
L71C:							
Metea	80	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.37	Too sandy	0.37	Slope	1.00
		Slope	0.04	Slope	0.04	Too sandy	0.37
Lester	15	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Moon	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
						Slope	0.12
L72A:							
Lundlake, depressional	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L110E:							
Lester	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Ridgeton	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Cokato	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Belview	6	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Hamel	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
						Slope	0.12
Terril	2	Not limited		Not limited		Somewhat limited	
						Slope	0.88
L110F:							
Lester	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L110F:							
Ridgeton	30	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
Cokato	8	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
Belview	4	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
Terril	2	Not limited		Not limited		Somewhat limited Slope	 0.88
Hamel	1	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21	Very limited Depth to saturated zone Restricted permeability Slope	 1.00 0.21 0.12
L131A:							
Litchfield	85	Very limited Depth to saturated zone Too sandy	 1.00 0.92	Somewhat limited Too sandy Depth to saturated zone	 0.92 0.90	Very limited Depth to saturated zone Too sandy	 1.00 0.92
Darfur	10	Very limited Depth to saturated zone	 1.00 	Very limited Depth to saturated zone	 1.00 	Very limited Depth to saturated zone	 1.00
Crowfork	5	Somewhat limited Too sandy	 0.42	Somewhat limited Too sandy	 0.42	Somewhat limited Slope Too sandy	 0.50 0.42
L132A:							
Hamel	50	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21
Glencoe, depressional	30	Very limited Depth to saturated zone Ponding	 1.00 1.00	Very limited Depth to saturated zone Ponding	 1.00 1.00	Very limited Depth to saturated zone Ponding	 1.00 1.00
Hamel, overwash	15	Somewhat limited Depth to saturated zone Restricted permeability	 0.98 0.21	Somewhat limited Depth to saturated zone Restricted permeability	 0.75 0.21	Somewhat limited Depth to saturated zone Restricted permeability	 0.98 0.21
Terril	5	Not limited		Not limited		Somewhat limited Slope	 0.12
M-W:							
Water, miscellaneous	100	Not rated		Not rated		Not rated	

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
U1A:							
Urban land	80	Not rated		Not rated		Not rated	
Udorthents, wet substratum	20	Not rated		Not rated		Not rated	
U2A:							
Udorthents, wet substratum	100	Not rated		Not rated		Not rated	
U3B:							
Udorthents (cut and fill land)	100	Not rated		Not rated		Not rated	
U4A:							
Urban land	70	Not rated		Not rated		Not rated	
Udipsamments (cut and fill land)	30	Not rated		Not rated		Not rated	
U5A:							
Urban land	65	Not rated		Not rated		Not rated	
Udorthents, wet substratum	35	Not rated		Not rated		Not rated	
U6B:							
Urban land	75	Not rated		Not rated		Not rated	
Udorthents (cut and fill land)	25	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 12b.--Recreational Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D1B:							
Anoka, terrace	55	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Not limited	
Zimmerman, terrace	40	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Somewhat limited Droughty	0.34
Kost	5	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Somewhat limited Droughty	0.25
D1C:							
Anoka, terrace	45	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Somewhat limited Slope	0.04
Zimmerman, terrace	45	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Somewhat limited Droughty	0.34
Kost	10	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Somewhat limited Droughty	0.25
D2A:							
Elkriver, rarely flooded	85	Not limited		Not limited		Not limited	
Mosford, rarely flooded	10	Not limited		Not limited		Somewhat limited Droughty	0.01
Elkriver, occasionally flooded	5	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone Flooding	0.75 0.60
D3A:							
Elkriver, occasionally flooded	80	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone Flooding	0.75 0.60
Fordum, frequently flooded	15	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone	1.00 1.00

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D3A:							
Winterfield, occasionally flooded	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.96	Too sandy	0.96	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Flooding	0.60
						Droughty	0.22
D4A:							
Dorset	90	Not limited		Not limited		Somewhat limited	
						Droughty	0.01
Verndale, acid substratum	8	Not limited		Not limited		Not limited	
Almora	2	Not limited		Not limited		Not limited	
D4B:							
Dorset	85	Not limited		Not limited		Somewhat limited	
						Droughty	0.01
Verndale, acid substratum	10	Not limited		Not limited		Not limited	
Almora	5	Not limited		Not limited		Not limited	
D4C:							
Dorset	75	Not limited		Not limited		Not limited	
Verndale, acid substratum	15	Not limited		Not limited		Not limited	
Almora	10	Not limited		Not limited		Not limited	
D5B:							
Dorset	65	Not limited		Not limited		Not limited	
Two Inlets	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Droughty	0.80
Verndale, acid substratum	5	Not limited		Not limited		Not limited	
Southhaven	5	Not limited		Not limited		Not limited	
D5C:							
Dorset	55	Not limited		Not limited		Not limited	
Two Inlets	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Droughty	0.80
						Slope	0.04
Southhaven	10	Not limited		Not limited		Not limited	
Verndale, acid substratum	5	Not limited		Not limited		Not limited	

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D5D:							
Dorset	50	Not limited		Not limited		Somewhat limited	
						Slope	0.84
						Droughty	0.17
Two Inlets	35	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.87	Too sandy	0.87	Slope	1.00
						Droughty	0.80
Southhaven	10	Not limited		Not limited		Not limited	
Verndale, acid substratum	5	Not limited		Not limited		Not limited	
D6A:							
Verndale, acid substratum	90	Not limited		Not limited		Not limited	
Dorset	7	Not limited		Not limited		Somewhat limited	
						Droughty	0.01
Hubbard	3	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.50
D6B:							
Verndale, acid substratum	85	Not limited		Not limited		Not limited	
Dorset	10	Not limited		Not limited		Somewhat limited	
						Droughty	0.01
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.59
D6C:							
Verndale, acid substratum	80	Not limited		Not limited		Not limited	
Dorset	15	Not limited		Not limited		Not limited	
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.83
D7A:							
Hubbard	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.50
Mosford	5	Not limited		Not limited		Not limited	
D7B:							
Hubbard	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.59
Mosford	10	Not limited		Not limited		Not limited	
D7C:							
Hubbard	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.83

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D7C:							
Sandberg	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.77	Too sandy	0.77	Too sandy	0.50
						Droughty	0.38
						Slope	0.16
Mosford	10	Not limited		Not limited		Not limited	
D8B:							
Sandberg	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.77	Too sandy	0.77	Too sandy	0.50
						Droughty	0.38
Arvilla, MAP >25	5	Not limited		Not limited		Somewhat limited	
						Droughty	0.27
D8C:							
Sandberg	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.77	Too sandy	0.77	Too sandy	0.50
						Droughty	0.38
						Slope	0.04
Corliss	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Droughty	0.74
						Slope	0.04
Southhaven	5	Not limited		Not limited		Not limited	
D8D:							
Sandberg	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.77	Too sandy	0.77	Slope	0.96
						Droughty	0.63
						Too sandy	0.50
Corliss	10	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.87	Too sandy	0.87	Slope	1.00
		Slope	0.02			Droughty	0.74
Southhaven	10	Not limited		Not limited		Not limited	
D8E:							
Sandberg	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.77	Slope	1.00
		Too sandy	0.77	Slope	0.01	Droughty	0.63
						Too sandy	0.50
Corliss	10	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.87	Slope	1.00
		Too sandy	0.87	Slope	0.01	Droughty	0.74
Southhaven	10	Not limited		Not limited		Not limited	
D10A:							
Forada	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Depressional soil	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D11A:							
Lindaas	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Lindaas, sandy substratum	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Depressional soil	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
D12B:							
Bygland, MAP >25	70	Not limited		Not limited		Not limited	
Bygland, sandy substratum	15	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.02
Lindaas	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Depressional soil	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
D12C2:							
Bygland, MAP >25	70	Not limited		Not limited		Not limited	
Bygland, sandy substratum	15	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.02
Lindaas	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Depressional soil	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
D13A:							
Langola, terrace	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.96	Too sandy	0.96	Depth to saturated zone	0.19
Duelm	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Droughty	0.21
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.50

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D13B:							
Langola, terrace	85	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Not limited	
Hubbard	10	Somewhat limited Too sandy	0.81	Somewhat limited Too sandy	0.81	Somewhat limited Droughty	0.59
Duelm	5	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.21
D15A:							
Seelyeville, drained	65	Not rated		Not rated		Not rated	
Markey, drained	25	Not rated		Not rated		Not rated	
Mineral soil, drained	10	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Droughty	1.00 1.00 0.03
D16A:							
Seelyeville, ponded	45	Not rated		Not rated		Not rated	
Markey, ponded	45	Not rated		Not rated		Not rated	
Mineral soil, ponded	10	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Depth to saturated zone Droughty	1.00 1.00 0.04
D17A:							
Duelm	90	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.21
Isan	8	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Droughty	1.00 0.04
Hubbard	2	Somewhat limited Too sandy	0.81	Somewhat limited Too sandy	0.81	Somewhat limited Droughty	0.59
D18B:							
Braham, terrace	85	Somewhat limited Too sandy	0.37	Somewhat limited Too sandy	0.37	Not limited	
Duelm	15	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.21
D19A:							
Fordum, frequently flooded	65	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone	1.00 1.00

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D19A:							
Winterfield, frequently flooded	25	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.96	Too sandy	0.96	Flooding	1.00
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
		Flooding	0.40	Flooding	0.40	Droughty	0.22
Fordum, occasionally flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
D20A:							
Isan	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.04
Isan, depressional	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
						Droughty	0.04
Duelm	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Droughty	0.21
D21A:							
Isan, depressional	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
						Droughty	0.04
Isan	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.04
D23A:							
Southhaven	90	Not limited		Not limited		Not limited	
Dorset	5	Not limited		Not limited		Not limited	
Mosford	5	Not limited		Not limited		Not limited	
D24A:							
Sedgeville, occasionally flooded	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D24A:							
Elkriver, occasionally flooded	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Flooding	0.60
D25A:							
Soderville, terrace	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Droughty	0.20
						Depth to saturated zone	0.19
Forada	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
D26A:							
Foldahl, MAP >25	90	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.87	Too sandy	0.87		
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.50
Isan	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.04
D27A:							
Dorset, loamy substratum	80	Not limited		Not limited		Not limited	
Dorset	15	Not limited		Not limited		Somewhat limited	
						Droughty	0.01
Southhaven	5	Not limited		Not limited		Not limited	
D28B:							
Urban land	75	Not rated		Not rated		Not rated	
Bygland, MAP >25	20	Not limited		Not limited		Not limited	
Bygland, sandy substratum	5	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.02
D29B:							
Urban land	70	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.59
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.59
Mosford	5	Not limited		Not limited		Not limited	

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
D30A:							
Seelyeville, surface drained	45	Not rated		Not rated		Not rated	
Markey, surface drained	45	Not rated		Not rated		Not rated	
Mineral soil, surface drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
						Droughty	0.04
D31A:							
Urban land	70	Not rated		Not rated		Not rated	
Duelm	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Droughty	0.21
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.59
Isan	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.04
D33B:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Not limited		Not limited		Somewhat limited	
						Droughty	0.01
Verndale, acid substratum	5	Not limited		Not limited		Not limited	
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.50
D33C:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Not limited		Not limited		Somewhat limited	
						Slope	0.16
Verndale, acid substratum	5	Not limited		Not limited		Not limited	
Hubbard	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.83
						Slope	0.63
D34B:							
Urban land	75	Not rated		Not rated		Not rated	
Hubbard	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.59
Mosford	5	Not limited		Not limited		Not limited	

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D35A:							
Elkriver, occasionally flooded	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Flooding	0.60
Fordum, occasionally flooded	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
Udipsamments	5	Not rated		Not rated		Not rated	
Winterfield, occasionally flooded	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.96	Too sandy	0.96	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Flooding	0.60
						Droughty	0.22
D37F:							
Dorset, bedrock substratum	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
						Droughty	0.01
Rock outcrop	20	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	10	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.81	Slope	1.00
		Too sandy	0.81	Slope	0.22	Droughty	0.59
D40A:							
Kratka, thick solum	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.96	Too sandy	0.96		
Duelm	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Droughty	0.21
Foldahl, MAP >25	10	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.87	Too sandy	0.87		
D41C:							
Urban land	75	Not rated		Not rated		Not rated	
Waukon	20	Not limited		Not limited		Not limited	
Braham	5	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.37	Too sandy	0.37		
D43A:							
Gonvick, terrace	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D43A:							
Braham	15	Somewhat limited Too sandy	0.37	Somewhat limited Too sandy	0.37	Not limited	
GP:							
Pits, gravel	80	Not rated		Not rated		Not rated	
Udipsamments	20	Not rated		Not rated		Not rated	
L2B:							
Malardi	65	Not limited		Not limited		Somewhat limited Droughty	0.06
Hawick	25	Not limited		Not limited		Somewhat limited Droughty	0.91
Rasset	5	Not limited		Not limited		Not limited	
Eden Prairie	5	Not limited		Not limited		Somewhat limited Droughty	0.05
L2C:							
Malardi	60	Not limited		Not limited		Somewhat limited Droughty	0.06
Hawick	25	Not limited		Not limited		Somewhat limited Droughty Slope	0.91 0.16
Tomall	10	Not limited		Not limited		Not limited	
Crowfork	5	Somewhat limited Too sandy	0.42	Somewhat limited Too sandy	0.42	Somewhat limited Droughty	0.02
L2D:							
Malardi	55	Not limited		Not limited		Somewhat limited Slope Droughty	0.84 0.32
Hawick	30	Not limited		Not limited		Very limited Slope Droughty	1.00 0.91
Tomall	10	Not limited		Not limited		Not limited	
Crowfork	5	Somewhat limited Too sandy	0.42	Somewhat limited Too sandy	0.42	Somewhat limited Slope Droughty	0.84 0.02
L2E:							
Malardi	55	Very limited Slope	1.00	Somewhat limited Slope	0.01	Very limited Slope Droughty	1.00 0.32
Hawick	30	Very limited Slope	1.00	Somewhat limited Slope	0.01	Very limited Slope Droughty	1.00 0.91
Tomall	15	Not limited		Not limited		Not limited	

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L3A:							
Rasset	90	Not limited		Not limited		Not limited	
Malardi	8	Not limited		Not limited		Somewhat limited	
						Droughty	0.06
Eden Prairie	2	Not limited		Not limited		Somewhat limited	
						Droughty	0.05
L3B:							
Rasset	80	Not limited		Not limited		Not limited	
Malardi	15	Not limited		Not limited		Somewhat limited	
						Droughty	0.06
Eden Prairie	5	Not limited		Not limited		Somewhat limited	
						Droughty	0.05
L3C:							
Rasset	75	Not limited		Not limited		Not limited	
Malardi	10	Not limited		Not limited		Somewhat limited	
						Droughty	0.06
Tomall	10	Not limited		Not limited		Not limited	
Eden Prairie	5	Not limited		Not limited		Somewhat limited	
						Droughty	0.05
L4B:							
Crowfork	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.42	Too sandy	0.42	Droughty	0.02
Eden Prairie	10	Not limited		Not limited		Somewhat limited	
						Droughty	0.05
L4C:							
Crowfork	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.42	Too sandy	0.42	Droughty	0.02
Eden Prairie	10	Not limited		Not limited		Somewhat limited	
						Droughty	0.05
L4D:							
Crowfork	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.42	Too sandy	0.42	Slope	1.00
						Droughty	0.02
Eden Prairie	15	Not limited		Not limited		Somewhat limited	
						Droughty	0.05
L6A:							
Biscay	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Biscay, depressional	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L6A:							
Mayer	5	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
L7A:							
Biscay, depressional	80	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
Biscay	15	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Mayer	5	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
L8A:							
Darfur	95	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Dassel	5	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
L9A:							
Minnetonka	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Depressional soil	10	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
L10B:							
Kasota	80	Not limited		Not limited		Not limited	
Eden Prairie	10	Not limited		Not limited		Somewhat limited Droughty	0.05
Wet soil in swales	10	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
L11B:							
Grays	90	Not limited		Not limited		Not limited	
Kasota	5	Not limited		Not limited		Not limited	
Crowfork	5	Somewhat limited Too sandy	0.42	Somewhat limited Too sandy	0.42	Somewhat limited Droughty	0.02

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L12A:							
Muskego, frequently flooded	30	Not rated		Not rated		Not rated	
Blue Earth, frequently flooded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Houghton, frequently flooded	30	Not rated		Not rated		Not rated	
Oshawa, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
L13A:							
Klossner, drained	80	Not rated		Not rated		Not rated	
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Houghton, drained	5	Not rated		Not rated		Not rated	
L14A:							
Houghton, drained	80	Not rated		Not rated		Not rated	
Klossner, drained	10	Not rated		Not rated		Not rated	
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L15A:							
Klossner, ponded	30	Not rated		Not rated		Not rated	
Okoboji, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Glencoe, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Houghton, ponded	10	Not rated		Not rated		Not rated	

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L16A:							
Muskego, ponded	30	Not rated		Not rated		Not rated	
Blue Earth, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Houghton, ponded	30	Not rated		Not rated		Not rated	
Klossner, ponded	10	Not rated		Not rated		Not rated	
L17B:							
Angus	50	Not limited		Not limited		Not limited	
Malardi	30	Not limited		Not limited		Somewhat limited	
						Droughty	0.06
Moon	10	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.37	Too sandy	0.37		
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L18A:							
Shields	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Lerdal	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.22	Depth to saturated zone	0.22	Depth to saturated zone	0.60
Mazaska	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L19B:							
Moon	85	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.37	Too sandy	0.37		
Finchford	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.60
L20B:							
Fedji, silty substratum	85	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.96	Too sandy	0.96		
Finchford	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.60
L21A:							
Canisteo	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Cordova	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L21A:							
Glencoe	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L22C2:							
Lester, eroded	70	Not limited		Not limited		Somewhat limited	
						Slope	0.04
Angus	15	Not limited		Not limited		Not limited	
Terril	12	Not limited		Not limited		Not limited	
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L22D2:							
Lester, eroded	80	Not limited		Not limited		Very limited	
						Slope	1.00
Terril	10	Not limited		Not limited		Not limited	
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ridgeton	5	Not limited		Not limited		Somewhat limited	
						Slope	0.16
L22E:							
Lester, morainic	75	Somewhat limited		Not limited		Very limited	
		Slope	0.82			Slope	1.00
Terril	15	Not limited		Not limited		Not limited	
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ridgeton	5	Not limited		Not limited		Somewhat limited	
						Slope	0.96
L22F:							
Lester, morainic	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
Terril	10	Not limited		Not limited		Not limited	
Ridgeton	10	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L23A:							
Cordova	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L23A:							
Glencoe	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Nessel	5	Not limited		Not limited		Not limited	
L24A:							
Glencoe, depressional	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L25A:							
Le Sueur	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.50	Depth to saturated zone	0.50	Depth to saturated zone	0.78
Cordova	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Angus	5	Not limited		Not limited		Not limited	
L26A:							
Shorewood	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
Minnetonka	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Good Thunder	5	Not limited		Not limited		Not limited	
L26B:							
Shorewood	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
Good Thunder	5	Not limited		Not limited		Not limited	
Minnetonka	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L26C2:							
Shorewood, eroded	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Slope	0.04
Minnetonka	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L27A:							
Suckercreek, frequently flooded	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Suckercreek, occasionally flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
Hanlon, occasionally flooded	5	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
L28A:							
Suckercreek, occasionally flooded	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Hanlon, occasionally flooded	10	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
L29A:							
Hanlon, occasionally flooded	80	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
Suckercreek, occasionally flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
L30A:							
Medo, surface drained	65	Not rated		Not rated		Not rated	
Medo, drained	20	Not rated		Not rated		Not rated	

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L30A:							
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L31A:							
Medo, ponded	30	Not rated		Not rated		Not rated	
Dassel, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Biscay, ponded	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
Houghton, ponded	5	Not rated		Not rated		Not rated	
Muskego, ponded	5	Not rated		Not rated		Not rated	
L32D:							
Hawick	75	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.50	Too sandy	0.50	Slope	1.00
		Slope	0.02			Droughty	0.88
Crowfork	15	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.42	Too sandy	0.42	Slope	1.00
		Slope	0.02			Droughty	0.02
Tomall	10	Not limited		Not limited		Not limited	
L32F:							
Hawick	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.50	Slope	1.00
		Too sandy	0.50	Slope	0.08	Droughty	0.88
Crowfork	15	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.42	Slope	1.00
		Too sandy	0.42	Slope	0.08	Droughty	0.02
Tomall	10	Not limited		Not limited		Not limited	
L35A:							
Lerdal	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.22	Depth to saturated zone	0.22	Depth to saturated zone	0.60
Mazaska	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Cordova	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L35A:							
Le Sueur	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.50	Depth to saturated zone	0.50	Depth to saturated zone	0.78
L36A:							
Hamel, overwash	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
Hamel	43	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Terril	5	Not limited		Not limited		Not limited	
Glencoe	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L37B:							
Angus, morainic	80	Not limited		Not limited		Not limited	
Angus, eroded	10	Not limited		Not limited		Not limited	
Le Sueur	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.50	Depth to saturated zone	0.50	Depth to saturated zone	0.78
Cordova	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L38A:							
Rushriver, occasionally flooded	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
Oshawa, frequently flooded	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Minneiska, occasionally flooded	5	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
Algansee, occasionally flooded	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.87	Too sandy	0.87	Depth to saturated zone	0.75
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Flooding	0.60
						Droughty	0.21

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L39A:							
Minneiska, occasionally flooded	70	Not limited		Not limited		Somewhat limited Flooding	 0.60
Rushriver, occasionally flooded	15	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
Oshawa, frequently flooded	10	Very limited Depth to saturated zone Ponding Flooding	 1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	 1.00 1.00 0.40	Very limited Ponding Flooding Depth to saturated zone	 1.00 1.00 1.00
Algansee, occasionally flooded	5	Somewhat limited Too sandy Depth to saturated zone	 0.87 0.44	Somewhat limited Too sandy Depth to saturated zone	 0.87 0.44	Somewhat limited Depth to saturated zone Flooding Droughty	 0.75 0.60 0.21
L40B:							
Angus	45	Not limited		Not limited		Not limited	
Kilkenny	40	Somewhat limited Depth to saturated zone	 0.18	Somewhat limited Depth to saturated zone	 0.18	Somewhat limited Depth to saturated zone	 0.56
Lerdal	10	Somewhat limited Depth to saturated zone	 0.22	Somewhat limited Depth to saturated zone	 0.22	Somewhat limited Depth to saturated zone	 0.60
Mazaska	5	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00
L41C2:							
Lester, eroded	45	Not limited		Not limited		Somewhat limited Slope	 0.04
Kilkenny, eroded	40	Not limited		Not limited		Somewhat limited Slope	 0.04
Terril	10	Not limited		Not limited		Not limited	
Derrynane	5	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00
L41D2:							
Lester, eroded	45	Not limited		Not limited		Very limited Slope	 1.00

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L41D2:							
Kilkenny, eroded	35	Not limited		Not limited		Very limited	
						Slope	1.00
Terril	10	Not limited		Not limited		Not limited	
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ridgeton	5	Not limited		Not limited		Somewhat limited	
						Slope	0.16
L41E:							
Lester	45	Somewhat limited		Not limited		Very limited	
		Slope	0.82			Slope	1.00
Kilkenny	40	Somewhat limited		Not limited		Very limited	
		Slope	0.82			Slope	1.00
Terril	5	Not limited		Not limited		Not limited	
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ridgeton	5	Not limited		Not limited		Somewhat limited	
						Slope	0.96
L41F:							
Lester	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
Kilkenny	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
Ridgeton	10	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
Terril	5	Not limited		Not limited		Not limited	
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L42B:							
Kingsley	70	Not limited		Not limited		Not limited	
Gotham	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.57	Too sandy	0.57	Droughty	0.01
Grays	5	Not limited		Not limited		Not limited	
L42C:							
Kingsley	70	Not limited		Not limited		Somewhat limited	
						Slope	0.04
Gotham	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.57	Too sandy	0.57	Slope	0.04
						Droughty	0.01

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
L42C:							
Grays	5	Not limited		Not limited		Not limited	
L42D:							
Kingsley	70	Not limited		Not limited		Somewhat limited	
						Slope	0.96
Gotham	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.57	Too sandy	0.57	Slope	0.96
						Droughty	0.01
Grays	5	Not limited		Not limited		Not limited	
L42E:							
Kingsley	70	Somewhat limited		Not limited		Very limited	
		Slope	0.82			Slope	1.00
Gotham	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.82	Too sandy	0.57	Slope	1.00
		Too sandy	0.57			Droughty	0.01
Grays	5	Not limited		Not limited		Not limited	
L42F:							
Kingsley	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
Gotham	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.57	Slope	1.00
		Too sandy	0.57	Slope	0.22	Droughty	0.01
Grays	5	Not limited		Not limited		Not limited	
L43A:							
Brouillett, occasionally flooded	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Flooding	0.60
Minneiska, occasionally flooded	10	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
Rushriver, occasionally flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
L44A:							
Nessel	85	Not limited		Not limited		Not limited	
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Angus	5	Not limited		Not limited		Not limited	

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L45A:							
Dundas	65	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75
Cordova	25	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Nessel	5	Not limited		Not limited		Not limited	
Glencoe	5	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
L46A:							
Tomall	80	Not limited		Not limited		Not limited	
Rasset	10	Not limited		Not limited		Not limited	
Malardi	10	Not limited		Not limited		Somewhat limited Droughty	0.06
L47A:							
Eden Prairie	85	Not limited		Not limited		Somewhat limited Droughty	0.05
Malardi	10	Not limited		Not limited		Somewhat limited Droughty	0.06
Rasset	5	Not limited		Not limited		Not limited	
L47B:							
Eden Prairie	80	Not limited		Not limited		Somewhat limited Droughty	0.05
Malardi	10	Not limited		Not limited		Somewhat limited Droughty	0.06
Rasset	10	Not limited		Not limited		Not limited	
L47C:							
Eden Prairie	70	Not limited		Not limited		Somewhat limited Droughty	0.05
Malardi	10	Not limited		Not limited		Somewhat limited Droughty	0.06
Rasset	10	Not limited		Not limited		Not limited	
Hawick	10	Not limited		Not limited		Somewhat limited Droughty Slope	0.91 0.16
L49A:							
Klossner, surface drained	65	Not rated		Not rated		Not rated	
Klossner, drained	20	Not rated		Not rated		Not rated	

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L49A:							
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L50A:							
Houghton, surface drained	40	Not rated		Not rated		Not rated	
Muskego, surface drained	40	Not rated		Not rated		Not rated	
Klossner, drained	10	Not rated		Not rated		Not rated	
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L52C:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Not limited		Not limited		Not limited	
Kingsley	5	Not limited		Not limited		Not limited	
L52E:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
Kingsley	5	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
L53B:							
Urban land	70	Not rated		Not rated		Not rated	
Moon	20	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.37	Too sandy	0.37		
Lester	10	Not limited		Not limited		Not limited	
L54A:							
Urban land	70	Not rated		Not rated		Not rated	
Dundas	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
Nessel	10	Not limited		Not limited		Not limited	
L55B:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Not limited		Not limited		Somewhat limited	
						Droughty	0.06

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L55B:							
Rasset	5	Not limited		Not limited		Not limited	
Eden Prairie	5	Not limited		Not limited		Somewhat limited	
						Droughty	0.05
L55C:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Not limited		Not limited		Somewhat limited	
						Droughty	0.06
						Slope	0.04
Hawick	5	Not limited		Not limited		Somewhat limited	
						Droughty	0.91
						Slope	0.04
Crowfork	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.42	Too sandy	0.42	Slope	0.04
						Droughty	0.02
L56A:							
Muskego, frequently flooded	45	Not rated		Not rated		Not rated	
Klossner, frequently flooded	45	Not rated		Not rated		Not rated	
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
						Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
L58B:							
Koronis	60	Not limited		Not limited		Not limited	
Kingsley	25	Not limited		Not limited		Not limited	
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Gotham	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.57	Too sandy	0.57	Droughty	0.01
L58C2:							
Koronis, eroded	55	Not limited		Not limited		Somewhat limited	
						Slope	0.04
Kingsley, eroded	25	Not limited		Not limited		Somewhat limited	
						Slope	0.04
Forestcity	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Gotham	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.57	Too sandy	0.57	Slope	0.16
						Droughty	0.01

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L58D2:							
Koronis, eroded	55	Not limited		Not limited		Very limited Slope	1.00
Kingsley, eroded	25	Not limited		Not limited		Very limited Slope	1.00
Forestcity	15	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Gotham	5	Somewhat limited Too sandy	0.57	Somewhat limited Too sandy	0.57	Very limited Slope Droughty	1.00 0.01
L58E:							
Koronis	55	Somewhat limited Slope	0.82	Not limited		Very limited Slope	1.00
Kingsley	25	Somewhat limited Slope	0.82	Not limited		Very limited Slope	1.00
Forestcity	15	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Gotham	5	Somewhat limited Slope Too sandy	0.82 0.57	Somewhat limited Too sandy	0.57	Very limited Slope Droughty	1.00 0.01
L59A:							
Forestcity	70	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Lundlake, depressional	25	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
Marcellon	5	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75
L60B:							
Angus	65	Not limited		Not limited		Not limited	
Moon	30	Somewhat limited Too sandy	0.37	Somewhat limited Too sandy	0.37	Not limited	
Hamel	5	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
L61C2:							
Lester, eroded	60	Not limited		Not limited		Somewhat limited Slope	0.04

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L61C2:							
Metea, eroded	25	Somewhat limited Too sandy	0.37	Somewhat limited Too sandy	0.37	Somewhat limited Slope	0.04
Terril	12	Not limited		Not limited		Not limited	
Hamel	3	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
L61D2:							
Lester, eroded	55	Not limited		Not limited		Very limited Slope	1.00
Metea, eroded	25	Somewhat limited Too sandy	0.37	Somewhat limited Too sandy	0.37	Very limited Slope	1.00
Terril	12	Not limited		Not limited		Not limited	
Ridgeton	5	Not limited		Not limited		Somewhat limited Slope	0.16
Hamel	3	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
L61E:							
Lester	55	Somewhat limited Slope	0.82	Not limited		Very limited Slope	1.00
Metea	25	Somewhat limited Slope Too sandy	0.82 0.37	Somewhat limited Too sandy	0.37	Very limited Slope	1.00
Terril	10	Not limited		Not limited		Not limited	
Hamel	5	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Ridgeton	5	Not limited		Not limited		Somewhat limited Slope	0.96
L62B:							
Koronis	55	Not limited		Not limited		Not limited	
Kingsley	20	Not limited		Not limited		Not limited	
Malardi	20	Not limited		Not limited		Somewhat limited Droughty	0.32
Forestcity	5	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
L62C2:							
Koronis, eroded	40	Not limited		Not limited		Somewhat limited Slope	0.04
Kingsley, eroded	25	Not limited		Not limited		Somewhat limited Slope	0.04

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L62C2:							
Malardi, eroded	25	Not limited		Not limited		Somewhat limited	
						Droughty	0.32
						Slope	0.04
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L62D2:							
Koronis, eroded	40	Not limited		Not limited		Somewhat limited	
						Slope	0.96
Kingsley, eroded	25	Not limited		Not limited		Somewhat limited	
						Slope	0.96
Malardi, eroded	25	Not limited		Not limited		Somewhat limited	
						Slope	0.96
						Droughty	0.32
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L62E:							
Koronis	40	Somewhat limited		Not limited		Very limited	
		Slope	0.98			Slope	1.00
Kingsley	25	Somewhat limited		Not limited		Very limited	
		Slope	0.98			Slope	1.00
Malardi	25	Somewhat limited		Not limited		Very limited	
		Slope	0.98			Slope	1.00
						Droughty	0.32
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L64A:							
Tadkee	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.89	Too sandy	0.89		
Tadkee, depressional	36	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Too sandy	0.89	Too sandy	0.89		
Better drained soil	8	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.46	Too sandy	0.46		
Granby	4	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Too sandy	0.89	Too sandy	0.89	Droughty	0.13

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L64A:							
Less sandy soil	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too sandy	0.89	Too sandy	0.89		
L70C2:							
Lester, eroded	60	Not limited		Not limited		Somewhat limited	
						Slope	0.04
Malardi, eroded	25	Not limited		Not limited		Somewhat limited	
						Droughty	0.06
						Slope	0.04
Terril	12	Not limited		Not limited		Not limited	
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L70D2:							
Lester, eroded	55	Not limited		Not limited		Very limited	
						Slope	1.00
Malardi, eroded	25	Not limited		Not limited		Very limited	
						Slope	1.00
						Droughty	0.32
Terril	12	Not limited		Not limited		Not limited	
Ridgeton	5	Not limited		Not limited		Somewhat limited	
						Slope	0.16
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L70E:							
Lester	55	Somewhat limited		Not limited		Very limited	
		Slope	0.98			Slope	1.00
Malardi	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.01	Slope	1.00
						Droughty	0.32
Terril	10	Not limited		Not limited		Not limited	
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ridgeton	5	Not limited		Not limited		Somewhat limited	
						Slope	0.96
L71C:							
Metea	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.37	Too sandy	0.37	Slope	0.04
Lester	15	Not limited		Not limited		Somewhat limited	
						Slope	0.04

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L71C:							
Moon	5	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.37	Too sandy	0.37		
L72A:							
Lundlake, depressional	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L110E:							
Lester	50	Somewhat limited		Not limited		Very limited	
		Slope	0.68			Slope	1.00
Ridgeton	30	Somewhat limited		Not limited		Very limited	
		Slope	0.08			Slope	1.00
Cokato	10	Somewhat limited		Not limited		Very limited	
		Slope	0.68			Slope	1.00
Belview	6	Somewhat limited		Not limited		Very limited	
		Slope	0.68			Slope	1.00
Hamel	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Terril	2	Not limited		Not limited		Not limited	
L110F:							
Lester	55	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Slope	1.00
Ridgeton	30	Somewhat limited		Not limited		Very limited	
		Slope	0.68			Slope	1.00
Cokato	8	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
Belview	4	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Slope	1.00
Terril	2	Not limited		Not limited		Not limited	
Hamel	1	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L131A:							
Litchfield	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.92	Too sandy	0.92	Depth to saturated zone	0.90
		Depth to saturated zone	0.78	Depth to saturated zone	0.78		

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L131A:							
Darfur	10	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Crowfork	5	Somewhat limited Too sandy	0.42	Somewhat limited Too sandy	0.42	Somewhat limited Droughty	0.02
L132A:							
Hamel	50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Glencoe, depressional	30	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
Hamel, overwash	15	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75
Terril	5	Not limited		Not limited		Not limited	
M-W:							
Water, miscellaneous	100	Not rated		Not rated		Not rated	
U1A:							
Urban land	80	Not rated		Not rated		Not rated	
Udorthents, wet substratum	20	Not rated		Not rated		Not rated	
U2A:							
Udorthents, wet substratum	100	Not rated		Not rated		Not rated	
U3B:							
Udorthents (cut and fill land)	100	Not rated		Not rated		Not rated	
U4A:							
Urban land	70	Not rated		Not rated		Not rated	
Udipsamments (cut and fill land)	30	Not rated		Not rated		Not rated	
U5A:							
Urban land	65	Not rated		Not rated		Not rated	
Udorthents, wet substratum	35	Not rated		Not rated		Not rated	
U6B:							
Urban land	75	Not rated		Not rated		Not rated	
Udorthents (cut and fill land)	25	Not rated		Not rated		Not rated	

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
W:							
Water	100	Not rated		Not rated		Not rated	

Table 13.--Wildlife Habitat

(See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable)

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
D1B:											
Anoka, terrace	55	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Zimmerman, terrace	40	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Kost	5	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
D1C:											
Anoka, terrace	45	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Zimmerman, terrace	45	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Kost	10	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
D2A:											
Elkriver, rarely flooded	85	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Mosford, rarely flooded	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Elkriver, occasionally flooded	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D3A:											
Elkriver, occasionally flooded	80	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Fordum, frequently flooded	15	Very poor	Very poor	Good	Fair	Fair	Good	Good	Very poor	Fair	Good
Winterfield, occasionally flooded	5	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
D4A:											
Dorset	90	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Verndale, acid substratum	8	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Almora	2	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D4B:											
Dorset	85	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
D4B:											
Verndale, acid substratum	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Almora	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D4C:											
Dorset	75	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Verndale, acid substratum	15	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Almora	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D5B:											
Dorset	65	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Two Inlets	25	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Verndale, acid substratum	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Southhaven	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D5C:											
Dorset	55	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Two Inlets	30	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Southhaven	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Verndale, acid substratum	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D5D:											
Dorset	50	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Two Inlets	35	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Southhaven	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Verndale, acid substratum	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
D6A:											
Verndale, acid substratum	90	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Dorset	7	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hubbard	3	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
D6B:											
Verndale, acid substratum	85	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Dorset	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hubbard	5	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
D6C:											
Verndale, acid substratum	80	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Dorset	15	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hubbard	5	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
D7A:											
Hubbard	95	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Mosford	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D7B:											
Hubbard	90	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Mosford	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D7C:											
Hubbard	80	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Sandberg	10	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Mosford	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D8B:											
Sandberg	95	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Arvilla, MAP >25	5	Fair	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
D8C:											
Sandberg	80	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Corliss	15	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Southhaven	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D8D:											
Sandberg	80	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Corliss	10	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Southhaven	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D8E:											
Sandberg	80	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Corliss	10	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Southhaven	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D10A:											
Forada	95	Fair	Good	Good	Good	Good	Good	Good	Good	Good	Good
Depressional soil	5	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
D11A:											
Lindaas	80	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Lindaas, sandy substratum	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Depressional soil	10	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
D12B:											
Bygland, MAP >25	70	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Bygland, sandy substratum	15	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Lindaas	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Depressional soil	5	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
D12C2:											
Bygland, MAP >25	70	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Bygland, sandy substratum	15	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
D12C2:											
Lindaas	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Depressional soil	5	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
D13A:											
Langola, terrace	85	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Duelm	10	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hubbard	5	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
D13B:											
Langola, terrace	85	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hubbard	10	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Duelm	5	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
D15A:											
Seelyeville, drained	65	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Markey, drained	25	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Mineral soil, drained	10	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
D16A:											
Seelyeville, ponded	45	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Markey, ponded	45	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Mineral soil, ponded	10	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
D17A:											
Duelm	90	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Isan	8	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Hubbard	2	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
D18B:											
Braham, terrace	85	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Duelm	15	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
D19A:											
Fordum, frequently flooded	65	Very poor	Very poor	Good	Fair	Fair	Good	Good	Very poor	Fair	Good
Winterfield, frequently flooded	25	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
D19A:											
Fordum, occasionally flooded	10	Poor	Fair	Good	Fair	Fair	Good	Good	Fair	Fair	Good
D20A:											
Isan	85	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Isan, depressional	10	Very poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Duelm	5	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
D21A:											
Isan, depressional	85	Very poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Isan	15	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
D23A:											
Southhaven	90	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Dorset	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Mosford	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D24A:											
Sedgeville, occasionally flooded	85	Fair	Good	Good	Good	Good	Good	Good	Good	Good	Good
Elkriver, occasionally flooded	15	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D25A:											
Soderville, terrace	90	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Forada	10	Fair	Good	Good	Good	Good	Good	Good	Good	Good	Good
D26A:											
Foldahl, MAP >25	90	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hubbard	5	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Isan	5	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
D27A:											
Dorset, loamy substratum	80	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Dorset	15	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Southhaven	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
D28B:											
Urban land	75	---	---	---	---	---	---	---	---	---	---
Bygland, MAP >25	20	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Bygland, sandy substratum	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D29B:											
Urban land	70	---	---	---	---	---	---	---	---	---	---
Hubbard, bedrock substratum	20	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Hubbard	5	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Mosford	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D30A:											
Seelyeville, surface drained	45	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Markey, surface drained	45	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Mineral soil, surface drained	10	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
D31A:											
Urban land	70	---	---	---	---	---	---	---	---	---	---
Duelm	20	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hubbard	5	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Isan	5	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
D33B:											
Urban land	70	---	---	---	---	---	---	---	---	---	---
Dorset	20	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Verndale, acid substratum	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hubbard	5	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
D33C:											
Urban land	70	---	---	---	---	---	---	---	---	---	---
Dorset	20	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
D33C:											
Verndale, acid substratum	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hubbard	5	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
D34B:											
Urban land	75	---	---	---	---	---	---	---	---	---	---
Hubbard	20	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Mosford	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D35A:											
Elkriver, occasionally flooded	70	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Fordum, occasionally flooded	20	Very poor	Very poor	Good	Fair	Fair	Good	Good	Very poor	Fair	Good
Udipsamments	5	---	---	---	---	---	---	---	---	---	---
Winterfield, occasionally flooded	5	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
D37F:											
Dorset, bedrock substratum	70	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Rock outcrop	20	---	---	---	---	---	---	---	---	---	---
Hubbard, bedrock substratum	10	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
D40A:											
Kratka, thick solum	80	Fair	Good	Good	Poor	Poor	Good	Good	Good	Poor	Good
Duelm	10	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Foldahl, MAP >25	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
D41C:											
Urban land	75	---	---	---	---	---	---	---	---	---	---
Waukon	20	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Braham	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
D43A:											
Gonvick, terrace	85	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Braham	15	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
GP.											
Pits, gravel-Udipsamments											
L2B:											
Malardi	65	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hawick	25	Poor	Fair	Good	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Rasset	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Eden Prairie	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L2C:											
Malardi	60	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hawick	25	Poor	Fair	Good	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Tomall	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Crowfork	5	Fair	Fair	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor
L2D:											
Malardi	55	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hawick	30	Poor	Fair	Good	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Tomall	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Crowfork	5	Fair	Fair	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor
L2E:											
Malardi	55	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hawick	30	Poor	Fair	Good	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Tomall	15	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L3A:											
Rasset	90	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	8	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Eden Prairie	2	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L3B:											
Rasset	80	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	15	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Eden Prairie	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L3C:											
Rasset	75	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Tomall	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Eden Prairie	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L4B:											
Crowfork	90	Fair	Fair	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor
Eden Prairie	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L4C:											
Crowfork	90	Fair	Fair	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor
Eden Prairie	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L4D:											
Crowfork	85	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Eden Prairie	15	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L6A:											
Biscay	85	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Biscay, depressional	10	Poor	Fair	Good	Poor	Poor	Good	Good	Good	Poor	Good
Mayer	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L7A:											
Biscay, depressional	80	Poor	Fair	Good	Poor	Poor	Good	Good	Good	Poor	Good
Biscay	15	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Mayer	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L8A:											
Darfur	95	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Dassel	5	Poor	Fair	Good	Poor	Poor	Good	Good	Good	Poor	Good
L9A:											
Minnetonka	90	Good	Good	Good	Good	Good	Good	Good	Good	Fair	Good
Depressional soil	10	Poor	Fair	Good	Poor	Poor	Good	Good	Good	Poor	Good
L10B:											
Kasota	80	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Eden Prairie	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Wet soil in swales	10	Good	Good	Good	Good	Good	Good	Good	Good	Fair	Good
L11B:											
Grays	90	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kasota	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Crowfork	5	Fair	Fair	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor
L12A:											
Muskego, frequently flooded	30	Very poor	Good	Good	Very poor	Very poor	Good	Good	Good	Very poor	Good
Blue Earth, frequently flooded	30	Very poor	Good	Good	Very poor	Very poor	Good	Good	Good	Very poor	Good
Houghton, frequently flooded	30	Very poor	Good	Good	Very poor	Very poor	Good	Good	Good	Very poor	Good
Oshawa, frequently flooded	10	Very poor	Good	Good	Very poor	Very poor	Good	Good	Good	Very poor	Good
L13A:											
Klossner, drained	80	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Mineral soil, drained	15	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Houghton, drained	5	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L14A:											
Houghton, drained	80	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Klossner, drained	10	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Mineral soil, drained	10	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
L15A:											
Klossner, ponded	30	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Okoboji, ponded	30	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Glencoe, ponded	30	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Houghton, ponded	10	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
L16A:											
Muskego, ponded	30	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Blue Earth, ponded	30	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Houghton, ponded	30	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Klossner, ponded	10	Very poor	Very poor	Good	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
L17B:											
Angus	50	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	30	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Moon	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Cordova	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L18A:											
Shields	85	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
Lerdal	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Mazaska	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L19B:											
Moon	85	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Finchford	15	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
L20B:											
Fedji, silty substratum	85	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L20B:											
Finchford	15	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
L21A:											
Canisteo	80	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Cordova	15	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Glencoe	5	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
L22C2:											
Lester, eroded	70	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Angus	15	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	12	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	3	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L22D2:											
Lester, eroded	80	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Ridgeton	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L22E:											
Lester, morainic	75	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	15	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Ridgeton	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L22F:											
Lester, morainic	75	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Ridgeton	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hamel	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L23A:											
Cordova	85	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Glencoe	10	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Nessel	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L24A:											
Glencoe, depressional	90	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Cordova	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L25A:											
Le Sueur	80	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Cordova	15	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Angus	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L26A:											
Shorewood	85	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Minnetonka	10	Good	Good	Good	Good	Good	Good	Good	Good	Fair	Good
Good Thunder	5	Good	Good	Good	Good	Good	Poor	Poor	Fair	Good	Poor
L26B:											
Shorewood	90	Good	Good	Good	Good	Good	Poor	Poor	Fair	Good	Poor
Good Thunder	5	Good	Good	Good	Good	Good	Poor	Poor	Fair	Good	Poor
Minnetonka	5	Good	Good	Good	Good	Good	Good	Good	Good	Fair	Good
L26C2:											
Shorewood, eroded	95	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Minnetonka	5	Good	Good	Good	Good	Good	Good	Good	Good	Fair	Good
L27A:											
Suckercreek, frequently flooded	85	Poor	Fair	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Suckercreek, occasionally flooded	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Hanlon, occasionally flooded	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
L28A:											
Suckercreek, occasionally flooded	80	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Suckercreek, frequently flooded	10	Poor	Fair	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Hanlon, occasionally flooded	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
L29A:											
Hanlon, occasionally flooded	80	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Suckercreek, occasionally flooded	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Suckercreek, frequently flooded	10	Poor	Fair	Good	Poor	Poor	Good	Good	Poor	Poor	Good

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L30A:											
Medo, surface drained	65	Very poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Medo, drained	20	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Mineral soil, drained	15	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
L31A:											
Medo, ponded	30	Very poor	Poor	Good	Very poor	Very poor	Good	Good	Good	Very poor	Good
Dassel, ponded	30	Very poor	Poor	Good	Very poor	Very poor	Good	Good	Good	Very poor	Good
Biscay, ponded	30	Very poor	Poor	Good	Very poor	Very poor	Good	Good	Good	Very poor	Good
Houghton, ponded	5	Very poor	Poor	Good	Very poor	Very poor	Good	Good	Good	Very poor	Good
Muskego, ponded	5	Very poor	Poor	Good	Very poor	Very poor	Good	Good	Good	Very poor	Good
L32D:											
Hawick	75	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Crowfork	15	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Tomall	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L32F:											
Hawick	75	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Crowfork	15	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Tomall	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L35A:											
Lerdal	80	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Mazaska	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Cordova	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Le Sueur	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
L36A:											
Hamel, overwash	50	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Hamel	43	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Terril	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Glencoe	2	Good	Good	Good	Good	Fair	Good	Good	Good	Good	Good

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L37B:											
Angus, morainic	80	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Angus, eroded	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Le Sueur	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Cordova	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L38A:											
Rushriver, occasionally flooded	75	Poor	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Oshawa, frequently flooded	15	Poor	Good	Good	Poor	Poor	Good	Good	Good	Poor	Good
Minneiska, occasionally flooded	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Algansee, occasionally flooded	5	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
L39A:											
Minneiska, occasionally flooded	70	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Rushriver, occasionally flooded	15	Poor	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Oshawa, frequently flooded	10	Poor	Good	Good	Poor	Poor	Good	Good	Good	Poor	Good
Algansee, occasionally flooded	5	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
L40B:											
Angus	45	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kilkenny	40	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Lerdal	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Mazaska	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L41C2:											
Lester, eroded	45	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kilkenny, eroded	40	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Derrynane	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L41D2:											
Lester, eroded	45	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L41D2:											
Kilkenny, eroded	35	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Derrynane	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Ridgeton	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L41E:											
Lester	45	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kilkenny	40	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Derrynane	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Ridgeton	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L41F:											
Lester	45	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kilkenny	35	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Ridgeton	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Derrynane	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L42B:											
Kingsley	70	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Gotham	25	Poor	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Grays	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L42C:											
Kingsley	70	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Gotham	25	Poor	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Grays	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L42D:											
Kingsley	70	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L42D:											
Gotham	25	Poor	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Grays	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L42E:											
Kingsley	70	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Gotham	25	Poor	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Grays	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L42F:											
Kingsley	70	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Gotham	25	Poor	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Grays	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L43A:											
Brouillett, occasionally flooded	80	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
Minneiska, occasionally flooded	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Rushriver, occasionally flooded	10	Poor	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L44A:											
Nessel	85	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Cordova	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Angus	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L45A:											
Dundas	65	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Cordova	25	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Nessel	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Glencoe	5	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
L46A:											
Tomall	80	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Rasset	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L47A:											
Eden Prairie	85	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Rasset	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L47B:											
Eden Prairie	80	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Rasset	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L47C:											
Eden Prairie	70	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	10	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Rasset	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hawick	10	Poor	Fair	Good	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
L49A:											
Klossner, surface drained	65	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Klossner, drained	20	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Mineral soil, drained	15	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
L50A:											
Houghton, surface drained	40	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Muskego, surface drained	40	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Klossner, drained	10	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Mineral soil, drained	10	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
L52C:											
Urban land	75	---	---	---	---	---	---	---	---	---	---
Lester	20	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley	5	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L52E:											
Urban land	75	---	---	---	---	---	---	---	---	---	---
Lester	20	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley	5	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L53B:											
Urban land	70	---	---	---	---	---	---	---	---	---	---
Moon	20	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Lester	10	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L54A:											
Urban land	70	---	---	---	---	---	---	---	---	---	---
Dundas	20	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Nessel	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
L55B:											
Urban land	70	---	---	---	---	---	---	---	---	---	---
Malardi	20	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Rasset	5	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Eden Prairie	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L55C:											
Urban land	70	---	---	---	---	---	---	---	---	---	---
Malardi	20	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hawick	5	Poor	Fair	Good	Poor	Fair	Very poor	Very poor	Good	Fair	Very poor
Crowfork	5	Fair	Fair	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor
L56A:											
Muskego, frequently flooded	45	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Klossner, frequently flooded	45	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Suckercreek, frequently flooded	10	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L58B:											
Koronis	60	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley	25	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Forestcity	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Gotham	5	Poor	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
L58C2:											
Koronis, eroded	55	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley, eroded	25	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Forestcity	15	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Gotham	5	Poor	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
L58D2:											
Koronis, eroded	55	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley, eroded	25	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Forestcity	15	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Gotham	5	Poor	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
L58E:											
Koronis	55	Poor	Poor	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley	25	Poor	Poor	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Forestcity	15	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Gotham	5	Poor	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
L59A:											
Forestcity	70	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Lundlake, depressional	25	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Marcellon	5	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
L60B:											
Angus	65	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Moon	30	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hamel	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L61C2:											
Lester, eroded	60	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Metea, eroded	25	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	12	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	3	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L61D2:											
Lester, eroded	55	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Metea, eroded	25	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	12	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Ridgeton	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hamel	3	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L61E:											
Lester	55	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Metea	25	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Ridgeton	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L62B:											
Koronis	55	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley	20	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	20	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Forestcity	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L62C2:											
Koronis, eroded	40	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley, eroded	25	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi, eroded	25	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Forestcity	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L62D2:											
Koronis, eroded	40	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley, eroded	25	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi, eroded	25	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Forestcity	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L62E:											
Koronis	40	Poor	Poor	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Kingsley	25	Poor	Poor	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	25	Poor	Poor	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Forestcity	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L64A:											
Tadkee	50	Poor	Good	Good	Fair	Poor	Good	Good	Good	Poor	Good
Tadkee, depressional	36	Poor	Good	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Better drained soil	8	Fair	Good	Good	Fair	Good	Very poor	Very poor	Fair	Good	Very poor
Granby	4	Poor	Good	Good	Poor	Poor	Good	Good	Good	Poor	Good
Less sandy soil	2	Poor	Good	Good	Fair	Poor	Good	Good	Good	Poor	Good
L70C2:											
Lester, eroded	60	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi, eroded	25	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	12	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	3	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L70D2:											
Lester, eroded	55	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi, eroded	25	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	12	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Ridgeton	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Hamel	3	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L70E:											
Lester	55	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Malardi	25	Poor	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Ridgeton	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L71C:											
Metea	80	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Lester	15	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Moon	5	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
L72A:											
Lundlake, depressional	90	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Forestcity	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L110E:											
Lester	50	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Ridgeton	30	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Cokato	10	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Belview	6	Fair	Good	Good	Fair	Poor	Very poor	Very poor	Fair	Fair	Very poor
Hamel	2	Good	Good	Fair	Good	Fair	Good	Good	Good	Fair	Good
Terril	2	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
L110F:											
Lester	55	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Ridgeton	30	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Cokato	8	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Belview	4	Poor	Fair	Good	Fair	Poor	Very poor	Very poor	Fair	Fair	Very poor
Terril	2	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	1	Good	Good	Fair	Good	Fair	Good	Good	Good	Fair	Good

Table 13.--Wildlife Habitat--Continued

Map symbol and component name	Pct. of map unit	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
L131A:											
Litchfield	85	Fair	Good	Good	Good	Good	Fair	Poor	Good	Good	Poor
Darfur	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Crowfork	5	Fair	Fair	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor
L132A:											
Hamel	50	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Glencoe, depressional	30	Good	Good	Good	Good	Fair	Good	Good	Good	Good	Good
Hamel, overwash	15	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Terril	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
M-W.											
Water, miscellaneous											
U1A.											
Urban land-Udorthents, wet substratum											
U2A.											
Udorthents, wet substratum											
U3B.											
Udorthents (cut and fill land)											
U4A.											
Urban land-Udipsamments (cut and fill land)											
U5A.											
Urban land-Udorthents, wet substratum											
U6B.											
Urban land-Udorthents (cut and fill land)											
W.											
Water											

Table 14a.--Building Site Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D1B:							
Anoka, terrace	55	Not limited		Not limited		Not limited	
Zimmerman, terrace	40	Not limited		Not limited		Not limited	
Kost	5	Not limited		Not limited		Not limited	
D1C:							
Anoka, terrace	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Zimmerman, terrace	45	Not limited		Not limited		Somewhat limited	
						Slope	0.88
Kost	10	Not limited		Not limited		Somewhat limited	
						Slope	0.88
D2A:							
Elkriver, rarely flooded	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.95		
Mosford, rarely flooded	10	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.16		
Elkriver, occasionally flooded	5	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
D3A:							
Elkriver, occasionally flooded	80	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
Fordum, frequently flooded	15	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D3A:							
Winterfield, occasionally flooded	5	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
D4A:							
Dorset	90	Not limited		Not limited		Not limited	
Verndale, acid substratum	8	Not limited		Not limited		Not limited	
Almora	2	Not limited		Not limited		Not limited	
D4B:							
Dorset	85	Not limited		Not limited		Not limited	
Verndale, acid substratum	10	Not limited		Not limited		Not limited	
Almora	5	Not limited		Not limited		Not limited	
D4C:							
Dorset	75	Not limited		Not limited		Somewhat limited	
						Slope	0.88
Verndale, acid substratum	15	Not limited		Not limited		Not limited	
Almora	10	Not limited		Not limited		Not limited	
D5B:							
Dorset	65	Not limited		Not limited		Not limited	
Two Inlets	25	Not limited		Not limited		Not limited	
Verndale, acid substratum	5	Not limited		Not limited		Not limited	
Southhaven	5	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
D5C:							
Dorset	55	Not limited		Not limited		Somewhat limited	
						Slope	0.88
Two Inlets	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Southhaven	10	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
Verndale, acid substratum	5	Not limited		Not limited		Somewhat limited	
						Slope	0.50

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D5D:							
Dorset	50	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
Two Inlets	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Southhaven	10	Not limited		Somewhat limited Depth to saturated zone	0.82	Not limited	
Verndale, acid substratum	5	Not limited		Not limited		Somewhat limited Slope	0.50
D6A:							
Verndale, acid substratum	90	Not limited		Not limited		Not limited	
Dorset	7	Not limited		Not limited		Not limited	
Hubbard	3	Not limited		Not limited		Not limited	
D6B:							
Verndale, acid substratum	85	Not limited		Not limited		Not limited	
Dorset	10	Not limited		Not limited		Not limited	
Hubbard	5	Not limited		Not limited		Not limited	
D6C:							
Verndale, acid substratum	80	Not limited		Not limited		Somewhat limited Slope	0.88
Dorset	15	Not limited		Not limited		Somewhat limited Slope	0.88
Hubbard	5	Not limited		Not limited		Very limited Slope	1.00
D7A:							
Hubbard	95	Not limited		Not limited		Not limited	
Mosford	5	Not limited		Not limited		Not limited	
D7B:							
Hubbard	90	Not limited		Not limited		Not limited	
Mosford	10	Not limited		Not limited		Not limited	
D7C:							
Hubbard	80	Not limited		Not limited		Very limited Slope	1.00
Sandberg	10	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
Mosford	10	Not limited		Not limited		Not limited	

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D8B:							
Sandberg	95	Not limited		Not limited		Not limited	
Arvilla, MAP >25	5	Not limited		Not limited		Not limited	
D8C:							
Sandberg	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Corliss	15	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Southhaven	5	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
D8D:							
Sandberg	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
Corliss	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Southhaven	10	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
D8E:							
Sandberg	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Corliss	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Southhaven	10	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
D10A:							
Forada	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Depressional soil	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
D11A:							
Lindaas	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
Lindaas, sandy substratum	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D11A:							
Depressional soil---	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
D12B:							
Bygland, MAP >25----	70	Very limited		Somewhat limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	0.95	Shrink-swell	1.00
				Shrink-swell	0.50		
Bygland, sandy substratum---------	15	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
		Depth to saturated zone	0.03	Shrink-swell	0.50	Depth to saturated zone	0.03
Lindaas----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
Depressional soil---	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
D12C2:							
Bygland, MAP >25----	70	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Depth to saturated zone	0.95	Slope	1.00
				Shrink-swell	0.50	Shrink-swell	0.50
Bygland, sandy substratum---------	15	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Slope	0.50
		Depth to saturated zone	0.03	Shrink-swell	0.50	Shrink-swell	0.50
						Depth to saturated zone	0.03
Lindaas----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
Depressional soil---	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
D13A:							
Langola, terrace----	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D13A:							
Duelm	10	Not limited		Very limited		Not limited	
				Depth to saturated zone	1.00		
Hubbard	5	Not limited		Not limited		Not limited	
D13B:							
Langola, terrace	85	Not limited		Very limited		Not limited	
				Depth to saturated zone	1.00		
Hubbard	10	Not limited		Not limited		Not limited	
Duelm	5	Not limited		Very limited		Not limited	
				Depth to saturated zone	1.00		
D15A:							
Seelyeville, drained	65	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Markey, drained	25	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00			Ponding	1.00
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
D16A:							
Seelyeville, ponded	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
Markey, ponded	45	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00			Content of organic matter	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D16A:							
Mineral soil, ponded	10	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
D17A:							
Duelm	90	Not limited		Very limited		Not limited	
				Depth to saturated zone	1.00		
Isan	8	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Hubbard	2	Not limited		Not limited		Not limited	
D18B:							
Braham, terrace	85	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
				Shrink-swell	0.50		
Duelm	15	Not limited		Very limited		Not limited	
				Depth to saturated zone	1.00		
D19A:							
Fordum, frequently flooded	65	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Winterfield, frequently flooded	25	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
Fordum, occasionally flooded	10	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
D20A:							
Isan	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Isan, depressional	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Duelm	5	Not limited		Very limited		Not limited	
				Depth to saturated zone	1.00		

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D21A:							
Isan, depressional	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Isan	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
D23A:							
Southhaven	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
Dorset	5	Not limited		Not limited		Not limited	
Mosford	5	Not limited		Not limited		Not limited	
D24A:							
Sedgeville, occasionally flooded	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Elkriver, occasionally flooded	15	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
D25A:							
Soderville, terrace	90	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
Forada	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
D26A:							
Foldahl, MAP >25	90	Not limited		Very limited		Not limited	
				Depth to saturated zone	1.00		
Hubbard	5	Not limited		Not limited		Not limited	
Isan	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
D27A:							
Dorset, loamy substratum	80	Not limited		Not limited		Not limited	
Dorset	15	Not limited		Not limited		Not limited	

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D27A:							
Southhaven	5	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
D28B:							
Urban land	75	Not rated		Not rated		Not rated	
Bygland, MAP >25	20	Very limited		Somewhat limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	0.95	Shrink-swell	1.00
				Shrink-swell	0.50		
Bygland, sandy substratum	5	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
		Depth to saturated zone	0.03	Shrink-swell	0.50	Depth to saturated zone	0.03
D29B:							
Urban land	70	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	20	Not limited		Not limited		Not limited	
Hubbard	5	Not limited		Not limited		Not limited	
Mosford	5	Not limited		Not limited		Not limited	
D30A:							
Seelyeville, surface drained	45	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Markey, surface drained	45	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00			Ponding	1.00
Mineral soil, surface drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
D31A:							
Urban land	70	Not rated		Not rated		Not rated	
Duelm	20	Not limited		Very limited		Not limited	
				Depth to saturated zone	1.00		

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D31A:							
Hubbard	5	Not limited		Not limited		Not limited	
Isan	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
D33B:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Not limited		Not limited		Not limited	
Verndale, acid substratum	5	Not limited		Not limited		Not limited	
Hubbard	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
D33C:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Verndale, acid substratum	5	Not limited		Not limited		Very limited	
						Slope	1.00
Hubbard	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
D34B:							
Urban land	75	Not rated		Not rated		Not rated	
Hubbard	20	Not limited		Not limited		Not limited	
Mosford	5	Not limited		Not limited		Not limited	
D35A:							
Elkriver, occasionally flooded	70	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
Fordum, occasionally flooded	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Udipsamments	5	Not rated		Not rated		Not rated	
Winterfield, occasionally flooded	5	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
D37F:							
Dorset, bedrock substratum	70	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Rock outcrop	20	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	10	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
D40A:							
Kratka, thick solum	80	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00
Duelm	10	Not limited		Very limited Depth to saturated zone	1.00	Not limited	
Foldahl, MAP >25	10	Not limited		Very limited Depth to saturated zone	1.00	Not limited	
D41C:							
Urban land	75	Not rated		Not rated		Not rated	
Waukon	20	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Very limited Slope Shrink-swell	1.00 0.50
Braham	5	Somewhat limited Shrink-swell	0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Somewhat limited Shrink-swell	0.50
D43A:							
Gonvick, terrace	85	Somewhat limited Depth to saturated zone Shrink-swell	0.98 0.50	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone Shrink-swell	0.98 0.50
Braham	15	Somewhat limited Shrink-swell	0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Somewhat limited Shrink-swell	0.50
GP:							
Pits, gravel	80	Not rated		Not rated		Not rated	
Udipsamments	20	Not rated		Not rated		Not rated	
L2B:							
Malardi	65	Not limited		Not limited		Not limited	
Hawick	25	Not limited		Not limited		Not limited	
Rasset	5	Not limited		Not limited		Not limited	
Eden Prairie	5	Not limited		Not limited		Not limited	

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L2C:							
Malardi	60	Not limited		Not limited		Very limited Slope	1.00
Hawick	25	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
Tomall	10	Not limited		Somewhat limited Depth to saturated zone	0.61	Not limited	
Crowfork	5	Not limited		Not limited		Very limited Slope	1.00
L2D:							
Malardi	55	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
Hawick	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Tomall	10	Not limited		Somewhat limited Depth to saturated zone	0.61	Not limited	
Crowfork	5	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
L2E:							
Malardi	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Hawick	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Tomall	15	Not limited		Somewhat limited Depth to saturated zone	0.61	Not limited	
L3A:							
Rasset	90	Not limited		Not limited		Not limited	
Malardi	8	Not limited		Not limited		Not limited	
Eden Prairie	2	Not limited		Not limited		Not limited	
L3B:							
Rasset	80	Not limited		Not limited		Not limited	
Malardi	15	Not limited		Not limited		Not limited	
Eden Prairie	5	Not limited		Not limited		Not limited	
L3C:							
Rasset	75	Not limited		Not limited		Very limited Slope	1.00
Malardi	10	Not limited		Not limited		Very limited Slope	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L3C:							
Tomall	10	Not limited		Somewhat limited Depth to saturated zone	0.61	Not limited	
Eden Prairie	5	Not limited		Not limited		Very limited Slope	1.00
L4B:							
Crowfork	90	Not limited		Not limited		Not limited	
Eden Prairie	10	Not limited		Not limited		Not limited	
L4C:							
Crowfork	90	Not limited		Not limited		Very limited Slope	1.00
Eden Prairie	10	Not limited		Not limited		Not limited	
L4D:							
Crowfork	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Eden Prairie	15	Not limited		Not limited		Not limited	
L6A:							
Biscay	85	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
Biscay, depressional	10	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50
Mayer	5	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
L7A:							
Biscay, depressional	80	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50
Biscay	15	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
Mayer	5	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
L8A:							
Darfur	95	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L8A:							
Dassel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L9A:							
Minnetonka	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
Depressional soil	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L10B:							
Kasota	80	Very limited		Not limited		Very limited	
		Shrink-swell	1.00			Shrink-swell	1.00
Eden Prairie	10	Not limited		Not limited		Not limited	
Wet soil in swales	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
L11B:							
Grays	90	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
						Slope	0.12
Kasota	5	Very limited		Not limited		Very limited	
		Shrink-swell	1.00			Shrink-swell	1.00
Crowfork	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
L12A:							
Muskego, frequently flooded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
Blue Earth, frequently flooded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L12A:							
Houghton, frequently flooded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
Oshawa, frequently flooded	10	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L13A:							
Klossner, drained	80	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00	Shrink-swell	0.50	Ponding	1.00
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Houghton, drained	5	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L14A:							
Houghton, drained	80	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Klossner, drained	10	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00	Shrink-swell	0.50	Ponding	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L14A:							
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L15A:							
Klossner, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Shrink-swell	0.50	Content of organic matter	1.00
Okoboji, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
Glencoe, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Houghton, ponded	10	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
L16A:							
Muskego, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
Blue Earth, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Houghton, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L16A:							
Klossner, ponded	10	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Shrink-swell	0.50	Content of organic matter	1.00
L17B:							
Angus	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78	Shrink-swell	0.50
Malardi	30	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Moon	10	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
				Shrink-swell	0.50		
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L18A:							
Shields	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
Lerdal	10	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.90	Shrink-swell	1.00	Depth to saturated zone	0.90
Mazaska	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00			Shrink-swell	1.00
L19B:							
Moon	85	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
				Shrink-swell	0.50		
Finchford	15	Not limited		Not limited		Somewhat limited	
						Slope	0.12
L20B:							
Fedji, silty substratum	85	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.87	Slope	0.03
				Shrink-swell	0.50		
Finchford	15	Not limited		Not limited		Somewhat limited	
						Slope	0.12

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L21A:							
Canisteo	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Cordova	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Glencoe	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L22C2:							
Lester, eroded	70	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	1.00
		Slope	0.04	Slope	0.04	Shrink-swell	0.50
Angus	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78	Shrink-swell	0.50
Terril	12	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L22D2:							
Lester, eroded	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Terril	10	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
L22E:							
Lester, morainic	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Terril	15	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L22E:							
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
L22F:							
Lester, morainic	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Terril	10	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		
Ridgeton	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L23A:							
Cordova	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Glencoe	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Nessel	5	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
L24A:							
Glencoe, depressional	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L25A:							
Le Sueur	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Shrink-swell	0.50			Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L25A:							
Cordova	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Angus	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78	Shrink-swell	0.50
L26A:							
Shorewood	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.98	Shrink-swell	1.00	Depth to saturated zone	0.98
Minnetonka	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
Good Thunder	5	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.01			Depth to saturated zone	0.01
L26B:							
Shorewood	90	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.98	Shrink-swell	1.00	Depth to saturated zone	0.98
Good Thunder	5	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.01			Depth to saturated zone	0.01
Minnetonka	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
L26C2:							
Shorewood, eroded	95	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.98	Shrink-swell	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to saturated zone	0.98
Minnetonka	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
L27A:							
Suckercreek, frequently flooded	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L27A:							
Suckercreek, occasionally flooded	10	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Hanlon, occasionally flooded	5	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	1.00		
L28A:							
Suckercreek, occasionally flooded	80	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Hanlon, occasionally flooded	10	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	1.00		
L29A:							
Hanlon, occasionally flooded	80	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	1.00		
Suckercreek, occasionally flooded	10	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L30A:							
Medo, surface drained	65	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00			Ponding	1.00
Medo, drained	20	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00			Ponding	1.00
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
L31A:							
Medo, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Dassel, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Biscay, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Houghton, ponded	5	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
Muskego, ponded	5	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L32D:							
Hawick	75	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Crowfork	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Tomall	10	Not limited		Somewhat limited Depth to saturated zone	0.61	Not limited	
L32F:							
Hawick	75	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Crowfork	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Tomall	10	Not limited		Somewhat limited Depth to saturated zone	0.61	Not limited	
L35A:							
Lerdal	80	Very limited Shrink-swell Depth to saturated zone	1.00 0.90	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.90
Mazaska	10	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
Cordova	5	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
Le Sueur	5	Somewhat limited Depth to saturated zone Shrink-swell	0.99 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	0.99 0.50
L36A:							
Hamel, overwash	50	Somewhat limited Depth to saturated zone	0.98	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Somewhat limited Depth to saturated zone	0.98
Hamel	43	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
Terril	5	Not limited		Somewhat limited Depth to saturated zone	0.78	Not limited	

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L36A:							
Glencoe	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L37B:							
Angus, morainic	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78	Shrink-swell	0.50
Angus, eroded	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78	Shrink-swell	0.50
				Shrink-swell	0.50		
Le Sueur	5	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Shrink-swell	0.50			Shrink-swell	0.50
Cordova	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L38A:							
Rushriver, occasionally flooded	75	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Oshawa, frequently flooded	15	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Minneiska, occasionally flooded	5	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	1.00		
Algansee, occasionally flooded	5	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L39A:							
Minneiska, occasionally flooded	70	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	1.00		
Rushriver, occasionally flooded	15	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Oshawa, frequently flooded	10	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Algansee, occasionally flooded	5	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
L40B:							
Angus	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78	Shrink-swell	0.50
Kilkenny	40	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
		Shrink-swell	0.50			Shrink-swell	0.50
Lerdal	10	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.90			Depth to saturated zone	0.90
Mazaska	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00			Shrink-swell	1.00
L41C2:							
Lester, eroded	45	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	1.00
		Slope	0.04	Slope	0.04	Shrink-swell	0.50
Kilkenny, eroded	40	Somewhat limited		Very limited		Very limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.04	Shrink-swell	0.50	Shrink-swell	0.50
				Slope	0.04		

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L41C2:							
Terril	10	Not limited		Somewhat limited Depth to saturated zone	0.78	Not limited	
Derrynane	5	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
L41D2:							
Lester, eroded	45	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Kilkenny, eroded	35	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Terril	10	Not limited		Somewhat limited Depth to saturated zone	0.78	Not limited	
Derrynane	5	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
Ridgeton	5	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
L41E:							
Lester	45	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope	1.00	Very limited Slope Shrink-swell	1.00 0.50
Kilkenny	40	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Slope Shrink-swell	1.00 0.50
Terril	5	Not limited		Somewhat limited Depth to saturated zone	0.78	Not limited	
Derrynane	5	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
Ridgeton	5	Somewhat limited Slope	0.96	Somewhat limited Slope	0.96	Very limited Slope	1.00
L41F:							
Lester	45	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope	1.00	Very limited Slope Shrink-swell	1.00 0.50

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L41F:							
Kilkenny	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
Ridgeton	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	5	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
L42B:							
Kingsley	70	Not limited		Not limited		Not limited	
Gotham	25	Not limited		Not limited		Not limited	
Grays	5	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
L42C:							
Kingsley	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Gotham	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Grays	5	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
L42D:							
Kingsley	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
Gotham	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
Grays	5	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
L42E:							
Kingsley	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Gotham	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Grays	5	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L42F:							
Kingsley	70	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Gotham	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Grays	5	Somewhat limited Shrink-swell	0.50	Very limited Depth to saturated zone	1.00	Somewhat limited Shrink-swell	0.50
L43A:							
Brouillett, occasionally flooded	80	Very limited Flooding Depth to saturated zone	1.00 0.98	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.98
Minneiska, occasionally flooded	10	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding	1.00
Rushriver, occasionally flooded	10	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
L44A:							
Nessel	85	Somewhat limited Shrink-swell	0.50	Very limited Depth to saturated zone	1.00	Somewhat limited Shrink-swell	0.50
Cordova	10	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
Angus	5	Somewhat limited Shrink-swell	0.50	Somewhat limited Depth to saturated zone	0.78	Somewhat limited Shrink-swell	0.50
L45A:							
Dundas	65	Somewhat limited Depth to saturated zone Shrink-swell	0.98 0.50	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone Shrink-swell	0.98 0.50
Cordova	25	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
Nessel	5	Somewhat limited Shrink-swell	0.50	Very limited Depth to saturated zone	1.00	Somewhat limited Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L45A:							
Glencoe	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L46A:							
Tomall	80	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.61		
Rasset	10	Not limited		Not limited		Not limited	
Malardi	10	Not limited		Not limited		Not limited	
L47A:							
Eden Prairie	85	Not limited		Not limited		Not limited	
Malardi	10	Not limited		Not limited		Not limited	
Rasset	5	Not limited		Not limited		Not limited	
L47B:							
Eden Prairie	80	Not limited		Not limited		Not limited	
Malardi	10	Not limited		Not limited		Not limited	
Rasset	10	Not limited		Not limited		Not limited	
L47C:							
Eden Prairie	70	Not limited		Not limited		Very limited	
						Slope	1.00
Malardi	10	Not limited		Not limited		Very limited	
						Slope	1.00
Rasset	10	Not limited		Not limited		Not limited	
Hawick	10	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
L49A:							
Klossner, surface drained	65	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00	Shrink-swell	0.50	Ponding	1.00
Klossner, drained	20	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00	Shrink-swell	0.50	Ponding	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L49A:							
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L50A:							
Houghton, surface drained	40	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Muskego, surface drained	40	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Klossner, drained	10	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00	Shrink-swell	0.50	Ponding	1.00
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L52C:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.88
						Shrink-swell	0.50
Kingsley	5	Not limited		Not limited		Somewhat limited	
						Slope	0.88
L52E:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Kingsley	5	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L53B:							
Urban land	70	Not rated		Not rated		Not rated	
Moon	20	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
				Shrink-swell	0.50		
Lester	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.50
						Shrink-swell	0.50
L54A:							
Urban land	70	Not rated		Not rated		Not rated	
Dundas	20	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
		Shrink-swell	0.50			Shrink-swell	0.50
Nessel	10	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
L55B:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Not limited		Not limited		Not limited	
Rasset	5	Not limited		Not limited		Not limited	
Eden Prairie	5	Not limited		Not limited		Not limited	
L55C:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Hawick	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Crowfork	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
L56A:							
Muskego, frequently flooded	45	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L56A:							
Klossner, frequently flooded	45	Very limited		Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00	Ponding	1.00	Content of organic matter	1.00
		Ponding	1.00	Shrink-swell	0.50	Ponding	1.00
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L58B:							
Koronis	60	Not limited		Not limited		Not limited	
Kingsley	25	Not limited		Not limited		Not limited	
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Gotham	5	Not limited		Not limited		Somewhat limited	
						Slope	0.12
L58C2:							
Koronis, eroded	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Kingsley, eroded	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Forestcity	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Gotham	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
L58D2:							
Koronis, eroded	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Kingsley, eroded	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Forestcity	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Gotham	5	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L58E:							
Koronis	55	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
Kingsley	25	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
Forestcity	15	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50
Gotham	5	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
L59A:							
Forestcity	70	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50
Lundlake, depressional	25	Very limited Depth to saturated zone Ponding Shrink-swell	 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Shrink-swell	 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Shrink-swell	 1.00 1.00 0.50
Marcellon	5	Somewhat limited Depth to saturated zone Shrink-swell	 0.98 0.50	Very limited Depth to saturated zone	 1.00	Somewhat limited Depth to saturated zone Shrink-swell	 0.98 0.50
L60B:							
Angus	65	Somewhat limited Shrink-swell	 0.50	Somewhat limited Depth to saturated zone	 0.78	Somewhat limited Shrink-swell	 0.50
Moon	30	Somewhat limited Shrink-swell	 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Somewhat limited Shrink-swell	 0.50
Hamel	5	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50
L61C2:							
Lester, eroded	60	Somewhat limited Shrink-swell Slope	 0.50 0.04	Somewhat limited Shrink-swell Slope	 0.50 0.04	Very limited Slope Shrink-swell	 1.00 0.50
Metea, eroded	25	Somewhat limited Shrink-swell Slope	 0.50 0.04	Somewhat limited Shrink-swell Slope	 0.50 0.04	Very limited Slope Shrink-swell	 1.00 0.50
Terril	12	Not limited		Somewhat limited Depth to saturated zone	 0.78	Not limited	

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L61C2:							
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L61D2:							
Lester, eroded	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Metea, eroded	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Terril	12	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L61E:							
Lester	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Metea	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Terril	10	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
L62B:							
Koronis	55	Not limited		Not limited		Not limited	
Kingsley	20	Not limited		Not limited		Not limited	
Malardi	20	Not limited		Not limited		Not limited	
Forestcity	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L62C2:							
Koronis, eroded	40	Somewhat limited Slope	 0.04	Somewhat limited Slope	 0.04	Very limited Slope	 1.00
Kingsley, eroded	25	Somewhat limited Slope	 0.04	Somewhat limited Slope	 0.04	Very limited Slope	 1.00
Malardi, eroded	25	Somewhat limited Slope	 0.04	Somewhat limited Slope	 0.04	Very limited Slope	 1.00
Forestcity	10	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50
L62D2:							
Koronis, eroded	40	Somewhat limited Slope	 0.96	Somewhat limited Slope	 0.96	Very limited Slope	 1.00
Kingsley, eroded	25	Somewhat limited Slope	 0.96	Somewhat limited Slope	 0.96	Very limited Slope	 1.00
Malardi, eroded	25	Somewhat limited Slope	 0.96	Somewhat limited Slope	 0.96	Very limited Slope	 1.00
Forestcity	10	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50
L62E:							
Koronis	40	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
Kingsley	25	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
Malardi	25	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
Forestcity	10	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50	Very limited Depth to saturated zone Shrink-swell	 1.00 0.50
L64A:							
Tadkee	50	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00	Very limited Depth to saturated zone	 1.00
Tadkee, depressional	36	Very limited Depth to saturated zone Ponding	 1.00 1.00	Very limited Depth to saturated zone Ponding	 1.00 1.00	Very limited Depth to saturated zone Ponding	 1.00 1.00
Better drained soil	8	Somewhat limited Depth to saturated zone	 0.01	Very limited Depth to saturated zone	 1.00	Somewhat limited Depth to saturated zone	 0.01

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L64A:							
Granby	4	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Less sandy soil	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
L70C2:							
Lester, eroded	60	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	1.00
		Slope	0.04	Slope	0.04	Shrink-swell	0.50
Malardi, eroded	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Terril	12	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L70D2:							
Lester, eroded	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Malardi, eroded	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	12	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L70E:							
Lester	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Malardi	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	10	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L70E:							
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
L71C:							
Metea	80	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	1.00
		Slope	0.04	Slope	0.04	Shrink-swell	0.50
Lester	15	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	1.00
		Slope	0.04	Slope	0.04	Shrink-swell	0.50
Moon	5	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
				Shrink-swell	0.50		
L72A:							
Lundlake, depressional	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
L110E:							
Lester	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Ridgeton	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Cokato	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Belview	6	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Hamel	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Terril	2	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.78	Slope	0.12

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
L110F:							
Lester	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Ridgeton	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Cokato	8	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Belview	4	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Terril	2	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.78	Slope	0.12
Hamel	1	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
L131A:							
Litchfield	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Darfur	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Crowfork	5	Not limited		Not limited		Not limited	
L132A:							
Hamel	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Glencoe, depressional	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Hamel, overwash	15	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
				Shrink-swell	0.50		
Terril	5	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.78		
M-W:							
Water, miscellaneous	100	Not rated		Not rated		Not rated	

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
U1A:							
Urban land	80	Not rated		Not rated		Not rated	
Udorthents, wet substratum	20	Not rated		Not rated		Not rated	
U2A:							
Udorthents, wet substratum	100	Not rated		Not rated		Not rated	
U3B:							
Udorthents (cut and fill land)	100	Not rated		Not rated		Not rated	
U4A:							
Urban land	70	Not rated		Not rated		Not rated	
Udipsamments (cut and fill land)	30	Not rated		Not rated		Not rated	
U5A:							
Urban land	65	Not rated		Not rated		Not rated	
Udorthents, wet substratum	35	Not rated		Not rated		Not rated	
U6B:							
Urban land	75	Not rated		Not rated		Not rated	
Udorthents (cut and fill land)	25	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 14b.--Building Site Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D1B:							
Anoka, terrace	55	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Zimmerman, terrace	40	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.34
Kost	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.25
D1C:							
Anoka, terrace	45	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.04
		Slope	0.04	Slope	0.04		
Zimmerman, terrace	45	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.34
Kost	10	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.25
D2A:							
Elkriver, rarely flooded	85	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
		Flooding	0.40	Depth to saturated zone	0.95		
Mosford, rarely flooded	10	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Cutbanks cave	1.00	Droughty	0.01
				Depth to saturated zone	0.16		
Elkriver, occasionally flooded	5	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60		
D3A:							
Elkriver, occasionally flooded	80	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D3A:							
Fordum, frequently flooded	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
Winterfield, occasionally flooded	5	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60	Droughty	0.22
D4A:							
Dorset	90	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
Verndale, acid substratum	8	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Almora	2	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
D4B:							
Dorset	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
Verndale, acid substratum	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Almora	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
D4C:							
Dorset	75	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Verndale, acid substratum	15	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Almora	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
D5B:							
Dorset	65	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Two Inlets	25	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.80
Verndale, acid substratum	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D5B:							
Southhaven----------	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.82		
D5C:							
Dorset----------	55	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Two Inlets----------	30	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Droughty	0.80
				Slope	0.04	Slope	0.04
Southhaven----------	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.82		
Verndale, acid substratum---------	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
D5D:							
Dorset----------	50	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.84	Cutbanks cave	1.00	Slope	0.84
		Frost action	0.50	Slope	0.84	Droughty	0.17
Two Inlets----------	35	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.80
Southhaven----------	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.82		
Verndale, acid substratum---------	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
D6A:							
Verndale, acid substratum---------	90	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Dorset----------	7	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
Hubbard----------	3	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.50
D6B:							
Verndale, acid substratum---------	85	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Dorset----------	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D6B:							
Hubbard	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.59
D6C:							
Verndale, acid substratum	80	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Dorset	15	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Hubbard	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.83
D7A:							
Hubbard	95	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.50
Mosford	5	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
D7B:							
Hubbard	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.59
Mosford	10	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
D7C:							
Hubbard	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.83
Sandberg	10	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Too sandy	0.50
				Slope	0.16	Droughty	0.38
						Slope	0.16
Mosford	10	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
D8B:							
Sandberg	95	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Too sandy	0.50
						Droughty	0.38
Arvilla, MAP >25	5	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.27
D8C:							
Sandberg	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Too sandy	0.50
				Slope	0.04	Droughty	0.38
						Slope	0.04
Corliss	15	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Droughty	0.74
				Slope	0.04	Slope	0.04

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D8C:							
Southhaven----------	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.82		
D8D:							
Sandberg----------	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.96	Cutbanks cave	1.00	Slope	0.96
				Slope	0.96	Droughty	0.63
						Too sandy	0.50
Corliss----------	10	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.74
Southhaven----------	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.82		
D8E:							
Sandberg----------	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.63
						Too sandy	0.50
Corliss----------	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.74
Southhaven----------	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.82		
D10A:							
Forada----------	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
Depressional soil---	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00		
D11A:							
Lindaas----------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.12		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Lindaas, sandy substratum---------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50	Too clayey	0.12		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D11A:							
Depressional soil---	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Too clayey	0.12		
		Shrink-swell	0.50	Cutbanks cave	0.10		
D12B:							
Bygland, MAP >25----	70	Very limited		Somewhat limited		Not limited	
		Frost action	1.00	Depth to saturated zone	0.95		
		Shrink-swell	1.00	Cutbanks cave	0.10		
				Too clayey	0.04		
Bygland, sandy substratum---------	15	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.02
		Shrink-swell	0.50	Cutbanks cave	1.00		
		Depth to saturated zone	0.02	Too clayey	0.04		
Lindaas----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.12		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Depressional soil---	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Too clayey	0.12		
		Shrink-swell	0.50	Cutbanks cave	0.10		
D12C2:							
Bygland, MAP >25----	70	Very limited		Somewhat limited		Not limited	
		Frost action	1.00	Depth to saturated zone	0.95		
		Shrink-swell	0.50	Cutbanks cave	0.10		
				Too clayey	0.04		
Bygland, sandy substratum---------	15	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.02
		Shrink-swell	0.50	Cutbanks cave	1.00		
		Depth to saturated zone	0.02	Too clayey	0.04		
Lindaas----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.12		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Depressional soil---	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Too clayey	0.12		
		Shrink-swell	0.50	Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D13A:							
Langola, terrace	85	Somewhat limited Depth to saturated zone	0.19	Very limited Depth to saturated zone Cutbanks cave Depth to dense layer	1.00 1.00 0.50	Somewhat limited Depth to saturated zone	0.19
Duelm	10	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to saturated zone	1.00 1.00	Somewhat limited Droughty	0.21
Hubbard	5	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.50
D13B:							
Langola, terrace	85	Not limited		Very limited Cutbanks cave Depth to saturated zone Depth to dense layer	1.00 1.00 0.50	Not limited	
Hubbard	10	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.59
Duelm	5	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to saturated zone	1.00 1.00	Somewhat limited Droughty	0.21
D15A:							
Seelyeville, drained	65	Very limited Depth to saturated zone Subsidence Frost action Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding Cutbanks cave	1.00 1.00 1.00 0.10	Not rated	
Markey, drained	25	Very limited Depth to saturated zone Subsidence Frost action Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Ponding Content of organic matter	1.00 1.00 1.00 1.00	Not rated	
Mineral soil, drained	10	Very limited Depth to saturated zone Ponding Frost action	1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Droughty	1.00 1.00 0.03

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D16A:							
Seelyeville, ponded	45	Very limited		Very limited		Not rated	
		Ponding	1.00	Ponding	1.00		
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Content of organic matter	1.00		
		Frost action	1.00	Cutbanks cave	0.10		
Markey, ponded------	45	Very limited		Very limited		Not rated	
		Ponding	1.00	Ponding	1.00		
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Content of organic matter	1.00		
Mineral soil, ponded	10	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.04
D17A:							
Duelm----------	90	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.21
				Depth to saturated zone	1.00		
Isan----------	8	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.04
Hubbard----------	2	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.59
D18B:							
Braham, terrace-----	85	Somewhat limited		Very limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	1.00		
Duelm----------	15	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.21
				Depth to saturated zone	1.00		
D19A:							
Fordum, frequently flooded----------	65	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D19A:							
Winterfield, frequently flooded	25	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Flooding	0.80	Droughty	0.22
Fordum, occasionally flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60		
D20A:							
Isan	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.04
Isan, depressional	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Cutbanks cave	1.00	Ponding	1.00
		Frost action	0.50	Ponding	1.00	Droughty	0.04
Duelm	5	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.21
				Depth to saturated zone	1.00		
D21A:							
Isan, depressional	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Cutbanks cave	1.00	Ponding	1.00
		Frost action	0.50	Ponding	1.00	Droughty	0.04
Isan	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.04
D23A:							
Southhaven	90	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.82		
Dorset	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Mosford	5	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D24A:							
Sedgeville, occasionally flooded	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60		
Elkriver, occasionally flooded	15	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60		
D25A:							
Soderville, terrace	90	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Droughty	0.20
		Depth to saturated zone	0.19	Cutbanks cave	1.00	Depth to saturated zone	0.19
Forada	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
D26A:							
Foldahl, MAP >25	90	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
				Depth to saturated zone	1.00		
Hubbard	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.50
Isan	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.04
D27A:							
Dorset, loamy substratum	80	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Dorset	15	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
Southhaven	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.82		
D28B:							
Urban land	75	Not rated		Not rated		Not rated	

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D28B:							
Bygland, MAP >25	20	Very limited		Somewhat limited		Not limited	
		Frost action	1.00	Depth to saturated zone	0.95		
		Shrink-swell	1.00	Cutbanks cave	0.10		
				Too clayey	0.04		
Bygland, sandy substratum	5	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.02
		Shrink-swell	0.50	Cutbanks cave	1.00		
		Depth to saturated zone	0.02	Too clayey	0.04		
D29B:							
Urban land	70	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	20	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.59
Hubbard	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.59
Mosford	5	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
D30A:							
Seelyeville, surface drained	45	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Content of organic matter	1.00		
		Frost action	1.00	Ponding	1.00		
		Ponding	1.00	Cutbanks cave	0.10		
Markey, surface drained	45	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Ponding	1.00		
		Ponding	1.00	Content of organic matter	1.00		
Mineral soil, surface drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Cutbanks cave	1.00	Ponding	1.00
		Frost action	0.50	Ponding	1.00	Droughty	0.04
D31A:							
Urban land	70	Not rated		Not rated		Not rated	
Duelm	20	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.21
				Depth to saturated zone	1.00		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D31A:							
Hubbard	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.59
Isan	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.04
D33B:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
Verndale, acid substratum	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Hubbard	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.50
D33C:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.16
		Slope	0.16	Slope	0.16		
Verndale, acid substratum	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Hubbard	5	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Droughty	0.83
				Slope	0.63	Slope	0.63
D34B:							
Urban land	75	Not rated		Not rated		Not rated	
Hubbard	20	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.59
Mosford	5	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
D35A:							
Elkriver, occasionally flooded	70	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60		
Fordum, occasionally flooded	20	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D35A:							
Udipsamments	5	Not rated		Not rated		Not rated	
Winterfield, occasionally flooded	5	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60	Droughty	0.22
D37F:							
Dorset, bedrock substratum	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
Rock outcrop	20	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.59
D40A:							
Kratka, thick solum	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00		
Duelm	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.21
				Depth to saturated zone	1.00		
Foldahl, MAP >25	10	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
				Depth to saturated zone	1.00		
D41C:							
Urban land	75	Not rated		Not rated		Not rated	
Waukon	20	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Braham	5	Somewhat limited		Very limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	1.00		
D43A:							
Gonvick, terrace	85	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
D43A:							
Braham	15	Somewhat limited Shrink-swell	 0.50	Very limited Cutbanks cave Depth to saturated zone	 1.00 1.00	Not limited	
GP:							
Pits, gravel	80	Not rated		Not rated		Not rated	
Udipsamments	20	Not rated		Not rated		Not rated	
L2B:							
Malardi	65	Somewhat limited Frost action	 0.50	Very limited Cutbanks cave	 1.00	Somewhat limited Droughty	 0.06
Hawick	25	Not limited		Very limited Cutbanks cave	 1.00	Somewhat limited Droughty	 0.91
Rasset	5	Somewhat limited Frost action	 0.50	Very limited Cutbanks cave	 1.00	Not limited	
Eden Prairie	5	Somewhat limited Frost action	 0.50	Very limited Cutbanks cave	 1.00	Somewhat limited Droughty	 0.05
L2C:							
Malardi	60	Somewhat limited Frost action	 0.50	Very limited Cutbanks cave	 1.00	Somewhat limited Droughty	 0.06
Hawick	25	Somewhat limited Slope	 0.16	Very limited Cutbanks cave Slope	 1.00 0.16	Somewhat limited Droughty Slope	 0.91 0.16
Tomall	10	Somewhat limited Frost action	 0.50	Very limited Cutbanks cave Depth to saturated zone	 1.00 0.61	Not limited	
Crowfork	5	Not limited		Very limited Cutbanks cave	 1.00	Somewhat limited Droughty	 0.02
L2D:							
Malardi	55	Somewhat limited Slope Frost action	 0.84 0.50	Very limited Cutbanks cave Slope	 1.00 0.84	Somewhat limited Slope Droughty	 0.84 0.32
Hawick	30	Very limited Slope	 1.00	Very limited Cutbanks cave Slope	 1.00 1.00	Very limited Slope Droughty	 1.00 0.91
Tomall	10	Somewhat limited Frost action	 0.50	Very limited Cutbanks cave Depth to saturated zone	 1.00 0.61	Not limited	
Crowfork	5	Somewhat limited Slope	 0.84	Very limited Cutbanks cave Slope	 1.00 0.84	Somewhat limited Slope Droughty	 0.84 0.02

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L2E:							
Malardi	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.32
Hawick	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.91
Tomall	15	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.61		
L3A:							
Rasset	90	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Malardi	8	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
Eden Prairie	2	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
L3B:							
Rasset	80	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Malardi	15	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
Eden Prairie	5	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
L3C:							
Rasset	75	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Malardi	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
Tomall	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.61		
Eden Prairie	5	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
L4B:							
Crowfork	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.02
Eden Prairie	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
L4C:							
Crowfork	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.02

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L4C:							
Eden Prairie	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
L4D:							
Crowfork	85	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.02
Eden Prairie	15	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
L6A:							
Biscay	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50				
Biscay, depressional	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00		
		Shrink-swell	0.50				
Mayer	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
L7A:							
Biscay, depressional	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00		
		Shrink-swell	0.50				
Biscay	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50				
Mayer	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
L8A:							
Darfur	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
Dassel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L9A:							
Minnetonka----------	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.12		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Depressional soil---	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Shrink-swell	1.00	Too clayey	0.12		
		Ponding	1.00	Cutbanks cave	0.10		
L10B:							
Kasota----------	80	Very limited		Very limited		Not limited	
		Frost action	1.00	Cutbanks cave	1.00		
		Shrink-swell	1.00	Too clayey	0.12		
Eden Prairie--------	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
Wet soil in swales--	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Shrink-swell	1.00	Too clayey	0.12		
L11B:							
Grays----------	90	Very limited		Very limited		Not limited	
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Kasota----------	5	Very limited		Very limited		Not limited	
		Frost action	1.00	Cutbanks cave	1.00		
		Shrink-swell	1.00	Too clayey	0.12		
Crowfork----------	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.02
L12A:							
Muskego, frequently flooded----------	30	Very limited		Very limited		Not rated	
		Ponding	1.00	Ponding	1.00		
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Content of organic matter	1.00		
		Flooding	1.00	Flooding	0.80		
		Frost action	1.00	Cutbanks cave	0.10		
Blue Earth, frequently flooded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
		Shrink-swell	0.50	Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L12A:							
Houghton, frequently flooded	30	Not rated		Very limited		Not rated	
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Content of organic matter	1.00		
				Flooding	0.80		
				Cutbanks cave	0.10		
Oshawa, frequently flooded	10	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Flooding	0.80	Depth to saturated zone	1.00
		Flooding	1.00	Cutbanks cave	0.10		
L13A:							
Klossner, drained	80	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Ponding	1.00		
		Frost action	1.00	Content of organic matter	1.00		
		Ponding	1.00	Cutbanks cave	0.10		
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
Houghton, drained	5	Not rated		Very limited		Not rated	
				Depth to saturated zone	1.00		
				Content of organic matter	1.00		
				Ponding	1.00		
				Cutbanks cave	0.10		
L14A:							
Houghton, drained	80	Not rated		Very limited		Not rated	
				Depth to saturated zone	1.00		
				Content of organic matter	1.00		
				Ponding	1.00		
				Cutbanks cave	0.10		
Klossner, drained	10	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Ponding	1.00		
		Frost action	1.00	Content of organic matter	1.00		
		Ponding	1.00	Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L14A:							
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
L15A:							
Klossner, ponded	30	Very limited		Very limited		Not rated	
		Ponding	1.00	Ponding	1.00		
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Content of organic matter	1.00		
		Frost action	1.00	Cutbanks cave	0.10		
Okoboji, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	1.00				
Glencoe, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Houghton, ponded	10	Not rated		Very limited		Not rated	
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Content of organic matter	1.00		
				Cutbanks cave	0.10		
L16A:							
Muskego, ponded	30	Very limited		Very limited		Not rated	
		Ponding	1.00	Ponding	1.00		
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Content of organic matter	1.00		
		Frost action	1.00	Cutbanks cave	0.10		
Blue Earth, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Content of organic matter	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L16A:							
Houghton, ponded	30	Not rated		Very limited		Not rated	
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Content of organic matter	1.00		
				Cutbanks cave	0.10		
Klossner, ponded	10	Very limited		Very limited		Not rated	
		Ponding	1.00	Ponding	1.00		
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Content of organic matter	1.00		
		Frost action	1.00	Cutbanks cave	0.10		
L17B:							
Angus	50	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78		
		Frost action	0.50	Cutbanks cave	0.10		
Malardi	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
Moon	10	Somewhat limited		Very limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	1.00		
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L18A:							
Shields	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.12		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Lerdal	10	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.60
		Shrink-swell	1.00	Too clayey	0.12		
		Depth to saturated zone	0.60	Cutbanks cave	0.10		
Mazaska	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	1.00	Too clayey	0.03		
L19B:							
Moon	85	Somewhat limited		Very limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	1.00		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L19B:							
Finchford	15	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.60
L20B:							
Fedji, silty substratum	85	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
				Depth to saturated zone	0.87		
Finchford	15	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.60
L21A:							
Canisteo	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
Cordova	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Glencoe	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
L22C2:							
Lester, eroded	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Cutbanks cave	0.10	Slope	0.04
		Frost action	0.50	Slope	0.04		
		Slope	0.04				
Angus	15	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78		
		Frost action	0.50	Cutbanks cave	0.10		
Terril	12	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L22D2:							
Lester, eroded	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L22D2:							
Terril	10	Somewhat limited Frost action	0.50	Somewhat limited Depth to saturated zone Cutbanks cave	0.78 0.10	Not limited	
Hamel	5	Very limited Depth to saturated zone Frost action Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Very limited Depth to saturated zone	1.00
Ridgeton	5	Somewhat limited Frost action Slope	 0.50 0.16	Somewhat limited Slope Cutbanks cave	 0.16 0.10	Somewhat limited Slope	 0.16
L22E:							
Lester, morainic	75	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	 1.00
Terril	15	Somewhat limited Frost action	 0.50	Somewhat limited Depth to saturated zone Cutbanks cave	 0.78 0.10	Not limited	
Hamel	5	Very limited Depth to saturated zone Frost action Shrink-swell	 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave	 1.00 0.10	Very limited Depth to saturated zone	 1.00
Ridgeton	5	Somewhat limited Slope Frost action	 0.96 0.50	Somewhat limited Slope Cutbanks cave	 0.96 0.10	Somewhat limited Slope	 0.96
L22F:							
Lester, morainic	75	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	 1.00
Terril	10	Somewhat limited Frost action	 0.50	Somewhat limited Depth to saturated zone Cutbanks cave	 0.78 0.10	Not limited	
Ridgeton	10	Very limited Slope Frost action	 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	 1.00
Hamel	5	Very limited Depth to saturated zone Frost action Shrink-swell	 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave	 1.00 0.10	Very limited Depth to saturated zone	 1.00

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L23A:							
Cordova	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Glencoe	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
Nessel	5	Very limited		Very limited		Not limited	
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
L24A:							
Glencoe, depressional	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L25A:							
Le Sueur	80	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.78
		Depth to saturated zone	0.78	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Cordova	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Angus	5	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78		
		Frost action	0.50	Cutbanks cave	0.10		
L26A:							
Shorewood	85	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Shrink-swell	1.00	Too clayey	0.15		
		Depth to saturated zone	0.75	Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L26A:							
Minnetonka----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.12		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Good Thunder--------	5	Very limited		Very limited		Not limited	
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	1.00	Too clayey	0.15		
				Cutbanks cave	0.10		
L26B:							
Shorewood----------	90	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Shrink-swell	1.00	Too clayey	0.15		
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
Good Thunder--------	5	Very limited		Very limited		Not limited	
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	1.00	Too clayey	0.15		
				Cutbanks cave	0.10		
Minnetonka----------	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.12		
		Shrink-swell	1.00	Cutbanks cave	0.10		
L26C2:							
Shorewood, eroded---	95	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Shrink-swell	1.00	Too clayey	0.15	Slope	0.04
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
		Slope	0.04	Slope	0.04		
Minnetonka----------	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Too clayey	0.12		
		Shrink-swell	1.00	Cutbanks cave	0.10		
L27A:							
Suckercreek, frequently flooded	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
Suckercreek, occasionally flooded----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Flooding	0.60	Flooding	0.60
		Flooding	1.00	Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L27A:							
Hanlon, occasionally flooded----------	5	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Depth to saturated zone	1.00		
				Flooding	0.60		
L28A:							
Suckercreek, occasionally flooded----------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Flooding	0.60	Flooding	0.60
		Flooding	1.00	Cutbanks cave	0.10		
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
Hanlon, occasionally flooded----------	10	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Depth to saturated zone	1.00		
				Flooding	0.60		
L29A:							
Hanlon, occasionally flooded----------	80	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Depth to saturated zone	1.00		
				Flooding	0.60		
Suckercreek, occasionally flooded----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Flooding	0.60	Flooding	0.60
		Flooding	1.00	Cutbanks cave	0.10		
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L30A:							
Medo, surface drained	65	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Ponding	1.00		
		Ponding	1.00	Content of organic matter	1.00		
Medo, drained	20	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Ponding	1.00		
		Ponding	1.00	Content of organic matter	1.00		
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00		
L31A:							
Medo, ponded	30	Very limited		Very limited		Not rated	
		Ponding	1.00	Ponding	1.00		
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00	Content of organic matter	1.00		
		Shrink-swell	0.50				
Dassel, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
Biscay, ponded	30	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50				
Houghton, ponded	5	Not rated		Very limited		Not rated	
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Content of organic matter	1.00		
				Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L31A:							
Muskego, ponded	5	Very limited		Very limited		Not rated	
		Ponding	1.00	Ponding	1.00		
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Content of organic matter	1.00		
		Frost action	1.00	Cutbanks cave	0.10		
L32D:							
Hawick	75	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.88
Crowfork	15	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.02
Tomall	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.61		
L32F:							
Hawick	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.88
Crowfork	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.02
Tomall	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.61		
L35A:							
Lerdal	80	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.60
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Depth to saturated zone	0.60				
Mazaska	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	1.00	Too clayey	0.03		
Cordova	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Le Sueur	5	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.78
		Depth to saturated zone	0.78	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L36A:							
Hamel, overwash	50	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
Hamel	43	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Terril	5	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Glencoe	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
L37B:							
Angus, morainic	80	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78		
		Frost action	0.50	Cutbanks cave	0.10		
Angus, eroded	10	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78		
		Frost action	0.50	Cutbanks cave	0.10		
Le Sueur	5	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.78
		Depth to saturated zone	0.78	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Cordova	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L38A:							
Rushriver, occasionally flooded	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L38A:							
Oshawa, frequently flooded	15	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Flooding	0.80	Depth to saturated zone	1.00
		Flooding	1.00	Cutbanks cave	0.10		
Minneiska, occasionally flooded	5	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Depth to saturated zone	1.00		
				Flooding	0.60		
Algansee, occasionally flooded	5	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60	Droughty	0.21
L39A:							
Minneiska, occasionally flooded	70	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Depth to saturated zone	1.00		
				Flooding	0.60		
Rushriver, occasionally flooded	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60		
Oshawa, frequently flooded	10	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Flooding	0.80	Depth to saturated zone	1.00
		Flooding	1.00	Cutbanks cave	0.10		
Algansee, occasionally flooded	5	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60	Droughty	0.21

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L40B:							
Angus	45	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78		
		Frost action	0.50	Cutbanks cave	0.10		
Kilkenny	40	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.56	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Lerdal	10	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.60
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Depth to saturated zone	0.60				
Mazaska	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	1.00	Too clayey	0.03		
L41C2:							
Lester, eroded	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Cutbanks cave	0.10	Slope	0.04
		Frost action	0.50	Slope	0.04		
		Slope	0.04				
Kilkenny, eroded	40	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Slope	0.04
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Slope	0.04	Slope	0.04		
Terril	10	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	1.00				
L41D2:							
Lester, eroded	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Kilkenny, eroded	35	Very limited		Very limited		Very limited	
		Frost action	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L41D2:							
Terril	10	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	1.00				
Ridgeton	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.16	Slope	0.16
		Slope	0.16	Cutbanks cave	0.10		
L41E:							
Lester	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Kilkenny	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Terril	5	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Derrynane	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	1.00				
Ridgeton	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.96	Slope	0.96	Slope	0.96
		Frost action	0.50	Cutbanks cave	0.10		
L41F:							
Lester	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Kilkenny	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Ridgeton	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L41F:							
Terril	5	Somewhat limited Frost action	0.50	Somewhat limited Depth to saturated zone Cutbanks cave	0.78 0.10	Not limited	
Derrynane	5	Very limited Depth to saturated zone Frost action Shrink-swell	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Very limited Depth to saturated zone	1.00
L42B:							
Kingsley	70	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
Gotham	25	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.01
Grays	5	Very limited Frost action Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Not limited	
L42C:							
Kingsley	70	Somewhat limited Slope	0.04	Somewhat limited Cutbanks cave Slope	0.10 0.04	Somewhat limited Slope	0.04
Gotham	25	Somewhat limited Slope	0.04	Very limited Cutbanks cave Slope	1.00 0.04	Somewhat limited Slope Droughty	0.04 0.01
Grays	5	Very limited Frost action Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Not limited	
L42D:							
Kingsley	70	Somewhat limited Slope	0.96	Somewhat limited Slope Cutbanks cave	0.96 0.10	Somewhat limited Slope	0.96
Gotham	25	Somewhat limited Slope	0.96	Very limited Cutbanks cave Slope	1.00 0.96	Somewhat limited Slope Droughty	0.96 0.01
Grays	5	Very limited Frost action Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Not limited	
L42E:							
Kingsley	70	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Gotham	25	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Droughty	1.00 0.01

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L42E:							
Grays	5	Very limited		Very limited		Not limited	
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
L42F:							
Kingsley	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
Gotham	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.01
Grays	5	Very limited		Very limited		Not limited	
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
L43A:							
Brouillett, occasionally flooded	80	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Low strength	0.78	Cutbanks cave	1.00	Flooding	0.60
		Depth to saturated zone	0.75	Flooding	0.60		
		Frost action	0.50				
Minneiska, occasionally flooded	10	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
		Frost action	0.50	Depth to saturated zone	1.00		
				Flooding	0.60		
Rushriver, occasionally flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60		
L44A:							
Nessel	85	Very limited		Very limited		Not limited	
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Cordova	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L44A:							
Angus	5	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78		
		Frost action	0.50	Cutbanks cave	0.10		
L45A:							
Dundas	65	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Cordova	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Nessel	5	Very limited		Very limited		Not limited	
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Glencoe	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
L46A:							
Tomall	80	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.61		
Rasset	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Malardi	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
L47A:							
Eden Prairie	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
Malardi	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
Rasset	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
L47B:							
Eden Prairie	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
Malardi	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L47B:							
Rasset	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
L47C:							
Eden Prairie	70	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
Malardi	10	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
Rasset	10	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Hawick	10	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Droughty	0.91
				Slope	0.16	Slope	0.16
L49A:							
Klossner, surface drained	65	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Ponding	1.00		
		Frost action	1.00	Content of organic matter	1.00		
			1.00	Cutbanks cave	0.10		
Klossner, drained	20	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Ponding	1.00		
		Frost action	1.00	Content of organic matter	1.00		
		Ponding	1.00	Cutbanks cave	0.10		
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
L50A:							
Houghton, surface drained	40	Not rated		Very limited		Not rated	
				Depth to saturated zone	1.00		
				Content of organic matter	1.00		
				Ponding	1.00		
				Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L50A:							
Muskego, surface drained	40	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Content of organic matter	1.00		
		Frost action	1.00	Ponding	1.00		
		Ponding	1.00	Cutbanks cave	0.10		
Klossner, drained	10	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Ponding	1.00		
		Frost action	1.00	Content of organic matter	1.00		
		Ponding	1.00	Cutbanks cave	0.10		
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
L52C:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Kingsley	5	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
L52E:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Kingsley	5	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
L53B:							
Urban land	70	Not rated		Not rated		Not rated	
Moon	20	Somewhat limited		Very limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	1.00		
Lester	10	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L54A:							
Urban land	70	Not rated		Not rated		Not rated	
Dundas	20	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Nessel	10	Very limited		Very limited		Not limited	
		Frost action	1.00	Depth to saturated zone	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
L55B:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
Rasset	5	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
Eden Prairie	5	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
L55C:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
		Slope	0.04	Slope	0.04	Slope	0.04
Hawick	5	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Droughty	0.91
				Slope	0.04	Slope	0.04
Crowfork	5	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Slope	0.04
				Slope	0.04	Droughty	0.02
L56A:							
Muskego, frequently flooded	45	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Content of organic matter	1.00		
		Ponding	1.00	Ponding	1.00		
		Frost action	1.00	Flooding	0.80		
		Flooding	1.00	Cutbanks cave	0.10		
Klossner, frequently flooded	45	Very limited		Very limited		Not rated	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Subsidence	1.00	Ponding	1.00		
		Frost action	1.00	Content of organic matter	1.00		
		Ponding	1.00	Flooding	0.80		
		Flooding	1.00	Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L56A:							
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
L58B:							
Koronis	60	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
Kingsley	25	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Gotham	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.01
L58C2:							
Koronis, eroded	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.04
		Slope	0.04	Slope	0.04		
Kingsley, eroded	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	0.10	Slope	0.04
				Slope	0.04		
Forestcity	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Gotham	5	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Slope	0.16
				Slope	0.16	Droughty	0.01
L58D2:							
Koronis, eroded	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		
Kingsley, eroded	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
Forestcity	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Gotham	5	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.01

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L58E:							
Koronis	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		
Kingsley	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
Forestcity	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Gotham	5	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.01
L59A:							
Forestcity	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Lundlake, depressional	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Marcellon	5	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L60B:							
Angus	65	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Depth to saturated zone	0.78		
		Frost action	0.50	Cutbanks cave	0.10		
Moon	30	Somewhat limited		Very limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	1.00		
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L61C2:							
Lester, eroded	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Cutbanks cave	0.10	Slope	0.04
		Frost action	0.50	Slope	0.04		
		Slope	0.04				
Metea, eroded	25	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Cutbanks cave	1.00	Slope	0.04
		Slope	0.04	Slope	0.04		
Terril	12	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L61D2:							
Lester, eroded	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Metea, eroded	25	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
		Shrink-swell	0.50	Slope	1.00		
Terril	12	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Ridgeton	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.16	Slope	0.16
		Slope	0.16	Cutbanks cave	0.10		
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L61E:							
Lester	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Metea	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	1.00		
Terril	10	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L61E:							
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Ridgeton	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.96	Slope	0.96	Slope	0.96
		Frost action	0.50	Cutbanks cave	0.10		
L62B:							
Koronis	55	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
Kingsley	20	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Malardi	20	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.32
Forestcity	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L62C2:							
Koronis, eroded	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.04
		Slope	0.04	Slope	0.04		
Kingsley, eroded	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	0.10	Slope	0.04
				Slope	0.04		
Malardi, eroded	25	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.32
		Slope	0.04	Slope	0.04	Slope	0.04
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L62D2:							
Koronis, eroded	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.96	Slope	0.96	Slope	0.96
		Frost action	0.50	Cutbanks cave	0.10		
Kingsley, eroded	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.96	Slope	0.96	Slope	0.96
				Cutbanks cave	0.10		
Malardi, eroded	25	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.96	Cutbanks cave	1.00	Slope	0.96
		Frost action	0.50	Slope	0.96	Droughty	0.32

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L62D2:							
Forestcity----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L62E:							
Koronis----------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		
Kingsley----------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
Malardi----------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.32
Forestcity----------	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L64A:							
Tadkee----------	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
Tadkee, depressional	36	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00		
Better drained soil	8	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	1.00		
Granby----------	4	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Droughty	0.13
Less sandy soil-----	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
L70C2:							
Lester, eroded------	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Cutbanks cave	0.10	Slope	0.04
		Frost action	0.50	Slope	0.04		
		Slope	0.04				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L70C2:							
Malardi, eroded	25	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.06
		Slope	0.04	Slope	0.04	Slope	0.04
Terril	12	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L70D2:							
Lester, eroded	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Malardi, eroded	25	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Droughty	0.32
Terril	12	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Ridgeton	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Slope	0.16	Slope	0.16
		Slope	0.16	Cutbanks cave	0.10		
Hamel	3	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L70E:							
Lester	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Malardi	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.32
Terril	10	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Hamel	5	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L70E:							
Ridgeton	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.96	Slope	0.96	Slope	0.96
		Frost action	0.50	Cutbanks cave	0.10		
L71C:							
Metea	80	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Cutbanks cave	1.00	Slope	0.04
		Slope	0.04	Slope	0.04		
Lester	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Cutbanks cave	0.10	Slope	0.04
		Frost action	0.50	Slope	0.04		
		Slope	0.04				
Moon	5	Somewhat limited		Very limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	1.00		
L72A:							
Lundlake, depressional	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Forestcity	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L110E:							
Lester	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Ridgeton	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		
Cokato	10	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Belview	6	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		
Hamel	2	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
L110E:							
Terril	2	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
L110F:							
Lester	55	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Ridgeton	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		
Cokato	8	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Belview	4	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		
Terril	2	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
Hamel	1	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
L131A:							
Litchfield	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.90	Depth to saturated zone	1.00	Depth to saturated zone	0.90
		Frost action	0.50	Cutbanks cave	1.00		
Darfur	10	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
Crowfork	5	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.02
L132A:							
Hamel	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L132A:							
Glencoe, depressional	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Ponding	1.00				
		Shrink-swell	0.50				
Hamel, overwash	15	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
Terril	5	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Depth to saturated zone	0.78		
				Cutbanks cave	0.10		
M-W:							
Water, miscellaneous	100	Not rated		Not rated		Not rated	
U1A:							
Urban land	80	Not rated		Not rated		Not rated	
Udorthents, wet substratum	20	Not rated		Not rated		Not rated	
U2A:							
Udorthents, wet substratum	100	Not rated		Not rated		Not rated	
U3B:							
Udorthents (cut and fill land)	100	Not rated		Not rated		Not rated	
U4A:							
Urban land	70	Not rated		Not rated		Not rated	
Udipsamments (cut and fill land)	30	Not rated		Not rated		Not rated	
U5A:							
Urban land	65	Not rated		Not rated		Not rated	
Udorthents, wet substratum	35	Not rated		Not rated		Not rated	
U6B:							
Urban land	75	Not rated		Not rated		Not rated	
Udorthents (cut and fill land)	25	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 15a.--Construction Materials

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
D1B:					
Anoka, terrace------	55	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.05
		Thickest layer	0.00	Bottom layer	0.36
Zimmerman, terrace--	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.28
		Thickest layer	0.00	Bottom layer	0.36
Kost----------	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.34
		Thickest layer	0.00	Bottom layer	0.82
D1C:					
Anoka, terrace------	45	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.05
		Thickest layer	0.00	Bottom layer	0.36
Zimmerman, terrace--	45	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.28
		Thickest layer	0.00	Bottom layer	0.36
Kost----------	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.34
		Thickest layer	0.00	Bottom layer	0.82
D2A:					
Elkriver, rarely flooded----------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.91
Mosford, rarely flooded----------	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.31
		Thickest layer	0.00	Bottom layer	0.79
Elkriver, occasionally flooded----------	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.91
D3A:					
Elkriver, occasionally flooded----------	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.91

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
D3A:					
Fordum, frequently flooded	15	Fair		Fair	
		Bottom layer	0.16	Thickest layer	0.02
		Thickest layer	0.16	Bottom layer	0.86
Winterfield, occasionally flooded	5	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.86
		Thickest layer	0.00	Thickest layer	0.86
D4A:					
Dorset	90	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.08	Bottom layer	0.58
Verndale, acid substratum	8	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
Almora	2	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.16	Bottom layer	0.58
D4B:					
Dorset	85	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.08	Bottom layer	0.58
Verndale, acid substratum	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
Almora	5	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.16	Bottom layer	0.58
D4C:					
Dorset	75	Fair		Fair	
		Bottom layer	0.08	Thickest layer	0.08
		Thickest layer	0.08	Bottom layer	0.58
Verndale, acid substratum	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
Almora	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.16	Bottom layer	0.58
D5B:					
Dorset	65	Fair		Fair	
		Bottom layer	0.08	Thickest layer	0.08
		Thickest layer	0.08	Bottom layer	0.58

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
D5B:					
Two Inlets	25	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.11
		Bottom layer	0.08	Bottom layer	0.91
Verndale, acid substratum	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
Southhaven	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.86
D5C:					
Dorset	55	Fair		Fair	
		Bottom layer	0.08	Thickest layer	0.08
		Thickest layer	0.08	Bottom layer	0.58
Two Inlets	30	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.11
		Bottom layer	0.08	Bottom layer	0.91
Southhaven	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.86
Verndale, acid substratum	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
D5D:					
Dorset	50	Fair		Fair	
		Bottom layer	0.08	Thickest layer	0.08
		Thickest layer	0.08	Bottom layer	0.86
Two Inlets	35	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.11
		Bottom layer	0.08	Bottom layer	0.91
Southhaven	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.86
Verndale, acid substratum	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
D6A:					
Verndale, acid substratum	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
Dorset	7	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.08	Bottom layer	0.58

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
D6A:					
Hubbard	3	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
D6B:					
Verndale, acid substratum	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
Dorset	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.08	Bottom layer	0.58
Hubbard	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
D6C:					
Verndale, acid substratum	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
Dorset	15	Fair		Fair	
		Bottom layer	0.08	Thickest layer	0.08
		Thickest layer	0.08	Bottom layer	0.58
Hubbard	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.50
		Thickest layer	0.00	Bottom layer	0.58
D7A:					
Hubbard	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
Mosford	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.69
		Thickest layer	0.00	Bottom layer	0.79
D7B:					
Hubbard	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
Mosford	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.69
		Thickest layer	0.00	Bottom layer	0.79
D7C:					
Hubbard	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.50
		Thickest layer	0.00	Bottom layer	0.58
Sandberg	10	Fair		Fair	
		Thickest layer	0.01	Thickest layer	0.50
		Bottom layer	0.08	Bottom layer	0.86

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
D7C:					
Mosford	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.69
		Thickest layer	0.00	Bottom layer	0.79
D8B:					
Sandberg	95	Fair		Fair	
		Thickest layer	0.01	Thickest layer	0.50
		Bottom layer	0.08	Bottom layer	0.86
Arvilla, MAP >25	5	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.07
		Bottom layer	0.12	Bottom layer	0.53
D8C:					
Sandberg	80	Fair		Fair	
		Thickest layer	0.01	Thickest layer	0.50
		Bottom layer	0.08	Bottom layer	0.86
Corliss	15	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.58
		Bottom layer	0.04	Thickest layer	0.58
Southhaven	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.86
D8D:					
Sandberg	80	Fair		Fair	
		Thickest layer	0.01	Thickest layer	0.50
		Bottom layer	0.08	Bottom layer	0.58
Corliss	10	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.58
		Bottom layer	0.04	Thickest layer	0.58
Southhaven	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.86
D8E:					
Sandberg	80	Fair		Fair	
		Thickest layer	0.01	Thickest layer	0.50
		Bottom layer	0.08	Bottom layer	0.58
Corliss	10	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.58
		Bottom layer	0.04	Thickest layer	0.58
Southhaven	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.86
D10A:					
Forada	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.91
Depressional soil	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.91

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
D11A:					
Lindaas	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lindaas, sandy substratum	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
Depressional soil	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
D12B:					
Bygland, MAP >25	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Bygland, sandy substratum	15	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
Lindaas	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Depressional soil	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
D12C2:					
Bygland, MAP >25	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Bygland, sandy substratum	15	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
Lindaas	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Depressional soil	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
D13A:					
Langola, terrace	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.08
Duelm	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.66
Hubbard	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
D13B:					
Langola, terrace	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.08
Hubbard	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
Duelm	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.66
D15A:					
Seelyeville, drained	65	Not rated		Not rated	
Markey, drained	25	Not rated		Not rated	
Mineral soil, drained	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.66
D16A:					
Seelyeville, ponded	45	Not rated		Not rated	
Markey, ponded	45	Not rated		Not rated	
Mineral soil, ponded	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
D17A:					
Duelm	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.66
Isan	8	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
Hubbard	2	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
D18B:					
Braham, terrace	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Duelm	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.66
D19A:					
Fordum, frequently flooded	65	Fair		Fair	
		Bottom layer	0.16	Thickest layer	0.02
		Thickest layer	0.16	Bottom layer	0.86

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
D19A:					
Winterfield, frequently flooded	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.86
		Thickest layer	0.00	Thickest layer	0.86
Fordum, occasionally flooded	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
D20A:					
Isan	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
Isan, depressional	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
Duelm	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.66
D21A:					
Isan, depressional	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
Isan	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
D23A:					
Southhaven	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.86
Dorset	5	Fair		Fair	
		Bottom layer	0.08	Thickest layer	0.08
		Thickest layer	0.08	Bottom layer	0.58
Mosford	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.69
		Thickest layer	0.00	Bottom layer	0.79
D24A:					
Sedgeville, occasionally flooded	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.75
Elkriver, occasionally flooded	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.91

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
D25A:					
Soderville, terrace	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
Forada	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.91
D26A:					
Foldahl, MAP >25	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.10
Hubbard	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
Isan	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
D27A:					
Dorset, loamy substratum	80	Fair		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.08	Thickest layer	0.61
Dorset	15	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.08	Bottom layer	0.58
Southhaven	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.86
D28B:					
Urban land	75	Not rated		Not rated	
Bygland, MAP >25	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Bygland, sandy substratum	5	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
D29B:					
Urban land	70	Not rated		Not rated	
Hubbard, bedrock substratum	20	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.86
		Thickest layer	0.00	Thickest layer	0.86
Hubbard	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
D29B:					
Mosford	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.69
		Thickest layer	0.00	Bottom layer	0.79
D30A:					
Seelyeville, surface drained	45	Not rated		Not rated	
Markey, surface drained	45	Not rated		Not rated	
Mineral soil, surface drained	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
D31A:					
Urban land	70	Not rated		Not rated	
Duelm	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.66
Hubbard	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
Isan	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
D33B:					
Urban land	70	Not rated		Not rated	
Dorset	20	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.08	Bottom layer	0.58
Verndale, acid substratum	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86
Hubbard	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
D33C:					
Urban land	70	Not rated		Not rated	
Dorset	20	Fair		Fair	
		Bottom layer	0.08	Thickest layer	0.08
		Thickest layer	0.08	Bottom layer	0.58
Verndale, acid substratum	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.86

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
D33C:					
Hubbard	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.50
		Thickest layer	0.00	Bottom layer	0.58
D34B:					
Urban land	75	Not rated		Not rated	
Hubbard	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.86
Mosford	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.69
		Thickest layer	0.00	Bottom layer	0.79
D35A:					
Elkriver, occasionally flooded	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.91
Fordum, occasionally flooded	20	Fair		Fair	
		Bottom layer	0.16	Thickest layer	0.02
		Thickest layer	0.16	Bottom layer	0.86
Udipsamments	5	Not rated		Not rated	
Winterfield, occasionally flooded	5	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.86
		Thickest layer	0.00	Thickest layer	0.86
D37F:					
Dorset, bedrock substratum	70	Fair		Fair	
		Bottom layer	0.08	Bottom layer	0.58
		Thickest layer	0.08	Thickest layer	0.58
Rock outcrop	20	Not rated		Not rated	
Hubbard, bedrock substratum	10	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.86
		Thickest layer	0.00	Thickest layer	0.86
D40A:					
Kratka, thick solum	80	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.31
Duelm	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.66
Foldahl, MAP >25	10	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.10

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
D41C:					
Urban land	75	Not rated		Not rated	
Waukon	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Braham	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
D43A:					
Gonvick, terrace	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Braham	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
GP:					
Pits, gravel	80	Not rated		Not rated	
Udipsamments	20	Not rated		Not rated	
L2B:					
Malardi	65	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Hawick	25	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.08	Bottom layer	0.58
Rasset	5	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.00	Bottom layer	0.86
Eden Prairie	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
L2C:					
Malardi	60	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Hawick	25	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.08	Bottom layer	0.58
Tomall	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.05	Bottom layer	0.10
Crowfork	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L2D:					
Malardi	55	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.05	Bottom layer	0.86
Hawick	30	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.08	Bottom layer	0.58
Tomall	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.05	Bottom layer	0.10
Crowfork	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91
L2E:					
Malardi	55	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.05	Bottom layer	0.86
Hawick	30	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.08	Bottom layer	0.58
Tomall	15	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.05	Bottom layer	0.10
L3A:					
Rasset	90	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.00	Bottom layer	0.86
Malardi	8	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Eden Prairie	2	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
L3B:					
Rasset	80	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.00	Bottom layer	0.86
Malardi	15	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Eden Prairie	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
L3C:					
Rasset	75	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.00	Bottom layer	0.86

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L3C:					
Malardi	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Tomall	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.05	Bottom layer	0.10
Eden Prairie	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
L4B:					
Crowfork	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91
Eden Prairie	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
L4C:					
Crowfork	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91
Eden Prairie	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
L4D:					
Crowfork	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91
Eden Prairie	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
L6A:					
Biscay	85	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
Biscay, depressional	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
Mayer	5	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.58
L7A:					
Biscay, depressional	80	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
Biscay	15	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L7A:					
Mayer	5	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.58
L8A:					
Darfur	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.11
Dassel	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.07
		Thickest layer	0.00	Bottom layer	0.09
L9A:					
Minnetonka	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Depressional soil	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L10B:					
Kasota	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.58
Eden Prairie	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
Wet soil in swales	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
L11B:					
Grays	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kasota	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.58
Crowfork	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91
L12A:					
Muskego, frequently flooded	30	Not rated		Not rated	
Blue Earth, frequently flooded	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Houghton, frequently flooded	30	Not rated		Not rated	

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L12A:					
Oshawa, frequently flooded	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L13A:					
Klossner, drained	80	Not rated		Not rated	
Mineral soil, drained	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Houghton, drained	5	Not rated		Not rated	
L14A:					
Houghton, drained	80	Not rated		Not rated	
Klossner, drained	10	Not rated		Not rated	
Mineral soil, drained	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L15A:					
Klossner, ponded	30	Not rated		Not rated	
Okoboji, ponded	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Glencoe, ponded	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Houghton, ponded	10	Not rated		Not rated	
L16A:					
Muskego, ponded	30	Not rated		Not rated	
Blue Earth, ponded	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Houghton, ponded	30	Not rated		Not rated	
Klossner, ponded	10	Not rated		Not rated	
L17B:					
Angus	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Malardi	30	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Moon	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L17B:					
Cordova	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L18A:					
Shields	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lerdal	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Mazaska	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L19B:					
Moon	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Finchford	15	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.10
		Bottom layer	0.00	Bottom layer	0.86
L20B:					
Fedji, silty substratum	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.05
Finchford	15	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.10
		Bottom layer	0.00	Bottom layer	0.86
L21A:					
Canisteo	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cordova	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Glencoe	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L22C2:					
Lester, eroded	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Angus	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L22C2:					
Terril	12	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	3	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L22D2:					
Lester, eroded	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L22E:					
Lester, morainic	75	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L22F:					
Lester, morainic	75	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L23A:					
Cordova	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Glencoe	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nessel	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L24A:					
Glencoe, depressional	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cordova	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L25A:					
Le Sueur	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cordova	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Angus	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L26A:					
Shorewood	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Minnetonka	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Good Thunder	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L26B:					
Shorewood	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Good Thunder	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Minnetonka	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L26C2:					
Shorewood, eroded	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Minnetonka	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L27A:					
Suckercreek, frequently flooded	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Suckercreek, occasionally flooded	10	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
Hanlon, occasionally flooded	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
L28A:					
Suckercreek, occasionally flooded	80	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
Suckercreek, frequently flooded	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Hanlon, occasionally flooded	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
L29A:					
Hanlon, occasionally flooded	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
Suckercreek, occasionally flooded	10	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
Suckercreek, frequently flooded	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L30A:					
Medo, surface drained	65	Not rated		Not rated	
Medo, drained	20	Not rated		Not rated	
Mineral soil, drained	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
L31A:					
Medo, ponded	30	Not rated		Not rated	
Dassel, ponded	30	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
Biscay, ponded	30	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
Houghton, ponded	5	Not rated		Not rated	
Muskego, ponded	5	Not rated		Not rated	
L32D:					
Hawick	75	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.08
		Bottom layer	0.08	Thickest layer	0.08
Crowfork	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91
Tomall	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.05	Bottom layer	0.10
L32F:					
Hawick	75	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.08
		Bottom layer	0.08	Thickest layer	0.08
Crowfork	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91
Tomall	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.05	Bottom layer	0.10
L35A:					
Lerdal	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Mazaska	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L35A:					
Cordova	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Le Sueur	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L36A:					
Hamel, overwash	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	43	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Glencoe	2	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L37B:					
Angus, morainic	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Angus, eroded	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Le Sueur	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cordova	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L38A:					
Rushriver, occasionally flooded	75	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.08
Oshawa, frequently flooded	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Minneiska, occasionally flooded	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L38A:					
Algansee, occasionally flooded	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.22
L39A:					
Minneiska, occasionally flooded	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
Rushriver, occasionally flooded	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.08
Oshawa, frequently flooded	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Algansee, occasionally flooded	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.22
L40B:					
Angus	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kilkenny	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lerdal	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Mazaska	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L41C2:					
Lester, eroded	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kilkenny, eroded	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L41C2:					
Derrynane	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L41D2:					
Lester, eroded	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kilkenny, eroded	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Derrynane	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L41E:					
Lester	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kilkenny	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Derrynane	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L41F:					
Lester	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kilkenny	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L41F:					
Terril	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Derrynane	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L42B:					
Kingsley	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Gotham	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.64
		Thickest layer	0.00	Bottom layer	0.86
Grays	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L42C:					
Kingsley	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Gotham	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.64
		Thickest layer	0.00	Bottom layer	0.86
Grays	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L42D:					
Kingsley	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Gotham	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.64
		Thickest layer	0.00	Bottom layer	0.86
Grays	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L42E:					
Kingsley	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Gotham	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.64
		Thickest layer	0.00	Bottom layer	0.86
Grays	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L42F:					
Kingsley	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Gotham	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.64
		Thickest layer	0.00	Bottom layer	0.86
Grays	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L43A:					
Brouillett, occasionally flooded	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Minneiska, occasionally flooded	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
Rushriver, occasionally flooded	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.08
L44A:					
Nessel	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cordova	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Angus	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L45A:					
Dundas	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cordova	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nessel	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Glencoe	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L46A:					
Tomall	80	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.05	Bottom layer	0.10
Rasset	10	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.00	Bottom layer	0.86
Malardi	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
L47A:					
Eden Prairie	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
Malardi	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Rasset	5	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.00	Bottom layer	0.86
L47B:					
Eden Prairie	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
Malardi	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Rasset	10	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.00	Bottom layer	0.86
L47C:					
Eden Prairie	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
Malardi	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Rasset	10	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.00	Bottom layer	0.86
Hawick	10	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.08	Bottom layer	0.58
L49A:					
Klossner, surface drained	65	Not rated		Not rated	
Klossner, drained	20	Not rated		Not rated	

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L49A:					
Mineral soil, drained	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L50A:					
Houghton, surface drained	40	Not rated		Not rated	
Muskego, surface drained	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Klossner, drained	10	Not rated		Not rated	
Mineral soil, drained	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L52C:					
Urban land	75	Not rated		Not rated	
Lester	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kingsley	5	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
L52E:					
Urban land	75	Not rated		Not rated	
Lester	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kingsley	5	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
L53B:					
Urban land	70	Not rated		Not rated	
Moon	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lester	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L54A:					
Urban land	70	Not rated		Not rated	
Dundas	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L54A:					
Nessel	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L55B:					
Urban land	70	Not rated		Not rated	
Malardi	20	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Rasset	5	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.02
		Bottom layer	0.00	Bottom layer	0.86
Eden Prairie	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.86
L55C:					
Urban land	70	Not rated		Not rated	
Malardi	20	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Hawick	5	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.08	Bottom layer	0.58
Crowfork	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91
L56A:					
Muskego, frequently flooded	45	Not rated		Not rated	
Klossner, frequently flooded	45	Not rated		Not rated	
Suckercreek, frequently flooded	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
L58B:					
Koronis	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kingsley	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Forestcity	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L58B:					
Gotham	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.64
		Thickest layer	0.00	Bottom layer	0.86
L58C2:					
Koronis, eroded	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kingsley, eroded	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Forestcity	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
Gotham	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.64
		Thickest layer	0.00	Bottom layer	0.86
L58D2:					
Koronis, eroded	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kingsley, eroded	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Forestcity	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
Gotham	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.64
		Thickest layer	0.00	Bottom layer	0.86
L58E:					
Koronis	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kingsley	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Forestcity	15	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
Gotham	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.64
		Thickest layer	0.00	Bottom layer	0.86
L59A:					
Forestcity	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L59A:					
Lundlake, depressional	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
Marcellon	5	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.03
L60B:					
Angus	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Moon	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L61C2:					
Lester, eroded	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Metea, eroded	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	12	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	3	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L61D2:					
Lester, eroded	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Metea, eroded	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	12	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	3	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L61E:					
Lester	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Metea	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L62B:					
Koronis	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kingsley	20	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Malardi	20	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.05	Bottom layer	0.86
Forestcity	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
L62C2:					
Koronis, eroded	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kingsley, eroded	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Malardi, eroded	25	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.05	Bottom layer	0.86
Forestcity	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
L62D2:					
Koronis, eroded	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L62D2:					
Kingsley, eroded	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Malardi, eroded	25	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.05	Bottom layer	0.86
Forestcity	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
L62E:					
Koronis	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kingsley	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.04
Malardi	25	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.05	Bottom layer	0.86
Forestcity	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
L64A:					
Tadkee	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.79
Tadkee, depressional	36	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.79
Better drained soil	8	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.08
Granby	4	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.02
		Thickest layer	0.00	Thickest layer	0.07
Less sandy soil	2	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L70C2:					
Lester, eroded	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Malardi, eroded	25	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L70C2:					
Terril	12	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	3	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L70D2:					
Lester, eroded	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Malardi, eroded	25	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.05	Bottom layer	0.86
Terril	12	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	3	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L70E:					
Lester	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Malardi	25	Fair		Fair	
		Thickest layer	0.00	Thickest layer	0.03
		Bottom layer	0.05	Bottom layer	0.86
Terril	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L71C:					
Metea	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lester	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
L71C:					
Moon	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L72A:					
Lundlake, depressional	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
Forestcity	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
L110E:					
Lester	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cokato	10	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Belview	6	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	2	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	2	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L110F:					
Lester	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cokato	8	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Belview	4	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	2	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel: Rating class	Value	Potential as source of sand: Rating class	Value
L110F:					
Hamel	1	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
L131A:					
Litchfield	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.02
		Thickest layer	0.00	Thickest layer	0.07
Darfur	10	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.11
Crowfork	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.09
		Thickest layer	0.00	Bottom layer	0.91
L132A:					
Hamel	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Glencoe, depressional	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel, overwash	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	5	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
M-W:					
Water, miscellaneous	100	Not rated		Not rated	
U1A:					
Urban land	80	Not rated		Not rated	
Udorthents, wet substratum	20	Not rated		Not rated	
U2A:					
Udorthents, wet substratum	100	Not rated		Not rated	
U3B:					
Udorthents (cut and fill land)	100	Not rated		Not rated	
U4A:					
Urban land	70	Not rated		Not rated	
Udipsamments (cut and fill land)	30	Not rated		Not rated	

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of gravel		Potential as source of sand	
		Rating class	Value	Rating class	Value
U5A:					
Urban land	65	Not rated		Not rated	
Udorthents, wet substratum	35	Not rated		Not rated	
U6B:					
Urban land	75	Not rated		Not rated	
Udorthents (cut and fill land)	25	Not rated		Not rated	
W:					
Water	100	Not rated		Not rated	

Table 15b.--Construction Materials

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D1B:							
Anoka, terrace------	55	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Low content of organic matter	0.12				
		Too acid	0.68				
Zimmerman, terrace--	40	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Low content of organic matter	0.12				
		Droughty	0.71				
		Too acid	0.84				
Kost----------	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Low content of organic matter	0.12				
		Droughty	0.54				
		Too acid	0.97				
D1C:							
Anoka, terrace------	45	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.96
		Low content of organic matter	0.12				
		Too acid	0.68				
Zimmerman, terrace--	45	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Low content of organic matter	0.12				
		Droughty	0.71				
		Too acid	0.84				
Kost----------	10	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Low content of organic matter	0.12				
		Droughty	0.54				
		Too acid	0.97				
D2A:							
Elkriver, rarely flooded----------	85	Fair		Good		Good	
		Low content of organic matter	0.05				
		Too acid	0.61				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D2A:							
Mosford, rarely flooded	10	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.97				
Elkriver, occasionally flooded	5	Fair		Fair		Fair	
		Low content of organic matter	0.05	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Too acid	0.61				
D3A:							
Elkriver, occasionally flooded	80	Fair		Fair		Fair	
		Low content of organic matter	0.05	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Too acid	0.61				
Fordum, frequently flooded	15	Fair		Poor		Poor	
		Low content of organic matter	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.92			Rock fragments	0.00
						Hard to reclaim	0.50
Winterfield, occasionally flooded	5	Poor		Fair		Poor	
		Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
		Wind erosion	0.00			Depth to saturated zone	0.14
		Low content of organic matter	0.12			Rock fragments	0.88
		Too acid	0.95				
D4A:							
Dorset	90	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.56			Hard to reclaim	0.50
		Too acid	0.92				
Verndale, acid substratum	8	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
Almora	2	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.41
		Too acid	0.95			Hard to reclaim	0.61
		Carbonate content	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D4B:							
Dorset	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.56			Hard to reclaim	0.50
		Too acid	0.92				
Verndale, acid substratum	10	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
Almora	5	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.41
		Too acid	0.95			Hard to reclaim	0.61
		Carbonate content	0.97				
D4C:							
Dorset	75	Fair		Good		Poor	
		Low content of organic matter	0.12			Rock fragments	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.91			Hard to reclaim	0.50
		Too acid	0.92				
Verndale, acid substratum	15	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
Almora	10	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.41
		Too acid	0.95			Hard to reclaim	0.61
		Carbonate content	0.97				
D5B:							
Dorset	65	Fair		Good		Poor	
		Low content of organic matter	0.12			Rock fragments	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.91			Hard to reclaim	0.50
		Too acid	0.92				
Two Inlets	25	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.00
		Low content of organic matter	0.12			Hard to reclaim	0.50
		Droughty	0.17			Carbonate content	0.97
		Too acid	0.95				
		Carbonate content	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D5B:							
Verndale, acid substratum	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
Southhaven	5	Fair		Good		Good	
		Too acid	0.97				
D5C:							
Dorset	55	Fair		Good		Poor	
		Low content of organic matter	0.12			Rock fragments	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.91			Hard to reclaim	0.50
		Too acid	0.92				
Two Inlets	30	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.00
		Low content of organic matter	0.12			Hard to reclaim	0.50
		Droughty	0.17			Slope	0.96
		Too acid	0.95			Carbonate content	0.97
		Carbonate content	0.97				
Southhaven	10	Fair		Good		Good	
		Too acid	0.97				
Verndale, acid substratum	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
D5D:							
Dorset	50	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.62			Slope	0.16
		Too acid	0.92			Hard to reclaim	0.50
Two Inlets	35	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.00
		Low content of organic matter	0.12			Slope	0.00
		Droughty	0.17			Hard to reclaim	0.50
		Too acid	0.95			Carbonate content	0.97
		Carbonate content	0.97				
Southhaven	10	Fair		Good		Good	
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D5D:							
Verndale, acid substratum	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
D6A:							
Verndale, acid substratum	90	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
Dorset	7	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.56			Hard to reclaim	0.50
		Too acid	0.92				
Hubbard	3	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.81				
		Too acid	0.92				
D6B:							
Verndale, acid substratum	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
Dorset	10	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.56			Hard to reclaim	0.50
		Too acid	0.92				
Hubbard	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.77				
		Too acid	0.92				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D6C:							
Verndale, acid substratum	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
Dorset	15	Fair		Good		Poor	
		Low content of organic matter	0.12			Rock fragments	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.91			Hard to reclaim	0.50
		Too acid	0.92				
Hubbard	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Low content of organic matter	0.12				
		Droughty	0.60				
		Too acid	0.92				
D7A:							
Hubbard	95	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.81				
		Too acid	0.92				
Mosford	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.97				
D7B:							
Hubbard	90	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.77				
		Too acid	0.92				
Mosford	10	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D7C:							
Hubbard	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Low content of organic matter	0.12				
		Droughty	0.60				
		Too acid	0.92				
Sandberg	10	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.03
		Low content of organic matter	0.12			Slope	0.84
						Hard to reclaim	0.92
		Droughty	0.68				
		Too acid	0.92				
Mosford	10	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.97				
D8B:							
Sandberg	95	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.03
		Low content of organic matter	0.12			Hard to reclaim	0.92
		Droughty	0.68				
		Too acid	0.92				
Arvilla, MAP >25	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
						Hard to reclaim	0.50
		Droughty	0.75				
		Too acid	0.95				
D8C:							
Sandberg	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.03
		Low content of organic matter	0.12			Hard to reclaim	0.92
						Slope	0.96
		Droughty	0.68				
		Too acid	0.92				
Corliss	15	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.00
		Low content of organic matter	0.12			Hard to reclaim	0.82
						Slope	0.96
		Droughty	0.43				
Southhaven	5	Fair		Good		Good	
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D8D:							
Sandberg	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.03
		Low content of organic matter	0.12			Slope	0.04
						Hard to reclaim	0.92
		Droughty	0.52				
		Too acid	0.92				
Corliss	10	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.98	Too sandy	0.00
		Wind erosion	0.00			Slope	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
						Hard to reclaim	0.82
		Droughty	0.43				
Southhaven	10	Fair		Good		Good	
		Too acid	0.97				
D8E:							
Sandberg	80	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.03
						Hard to reclaim	0.92
		Droughty	0.52				
		Too acid	0.92				
Corliss	10	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
						Hard to reclaim	0.82
		Droughty	0.43				
Southhaven	10	Fair		Good		Good	
		Too acid	0.97				
D10A:							
Forada	95	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.97				
Depressional soil	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.97				
D11A:							
Lindaas	80	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.66		
Lindaas, sandy substratum	10	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.81		

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D11A:							
Depressional soil	10	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.79		
D12B:							
Bygland, MAP >25	70	Poor		Fair		Poor	
		Too clayey	0.00	Shrink-swell	0.71	Too clayey	0.00
		Low content of organic matter	0.12				
		Water erosion	0.90				
		Too acid	0.97				
Bygland, sandy substratum	15	Fair		Fair		Fair	
		Low content of organic matter	0.12	Shrink-swell	0.72	Depth to saturated zone	0.80
		Water erosion	0.90	Depth to saturated zone	0.80		
		Too acid	0.97				
Lindaas	10	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.66		
Depressional soil	5	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.79		
D12C2:							
Bygland, MAP >25	70	Fair		Fair		Good	
		Low content of organic matter	0.12	Shrink-swell	0.75		
		Water erosion	0.90				
		Too acid	0.97				
Bygland, sandy substratum	15	Fair		Fair		Fair	
		Low content of organic matter	0.12	Shrink-swell	0.72	Depth to saturated zone	0.80
		Water erosion	0.90	Depth to saturated zone	0.80		
		Too acid	0.97				
Lindaas	10	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.66		
Depressional soil	5	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.79		

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D13A:							
Langola, terrace	85	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.53	Too sandy	0.30
		Low content of organic matter	0.12			Depth to saturated zone	0.53
		Too sandy	0.30			Hard to reclaim	0.99
		Too acid	0.97				
		Droughty	0.99				
Duelm	10	Poor		Fair		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.00
		Too sandy	0.00			Depth to saturated zone	0.89
		Low content of organic matter	0.12				
		Droughty	0.93				
		Too acid	0.97				
Hubbard	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.81				
		Too acid	0.92				
D13B:							
Langola, terrace	85	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.30
		Low content of organic matter	0.12			Depth to saturated zone	0.89
		Too sandy	0.30			Hard to reclaim	0.99
		Too acid	0.97				
		Droughty	0.99				
Hubbard	10	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.77				
		Too acid	0.92				
Duelm	5	Poor		Fair		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.00
		Too sandy	0.00			Depth to saturated zone	0.89
		Low content of organic matter	0.12				
		Droughty	0.93				
		Too acid	0.97				
D15A:							
Seelyeville, drained	65	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Markey, drained	25	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D15A:							
Mineral soil, drained	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Droughty	0.99				
D16A:							
Seelyeville, ponded	45	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Markey, ponded	45	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Mineral soil, ponded	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.99				
D17A:							
Duelm	90	Poor		Fair		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.00
		Too sandy	0.00			Depth to saturated zone	0.89
		Low content of organic matter	0.12				
		Droughty	0.93				
		Too acid	0.97				
Isan	8	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.99				
Hubbard	2	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.77				
		Too acid	0.92				
D18B:							
Braham, terrace	85	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.36
		Low content of organic matter	0.12			Depth to saturated zone	0.89
				Shrink-swell	0.98		
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
Duelm	15	Poor		Fair		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.00
		Too sandy	0.00			Depth to saturated zone	0.89
		Low content of organic matter	0.12				
		Droughty	0.93				
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D19A:							
Fordum, frequently flooded	65	Fair		Poor		Poor	
		Low content of organic matter	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.92			Rock fragments	0.00
						Hard to reclaim	0.50
Winterfield, frequently flooded	25	Poor		Fair		Poor	
		Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
		Low content of organic matter	0.12			Depth to saturated zone	0.14
		Too acid	0.95			Rock fragments	0.88
Fordum, occasionally flooded	10	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.92			Rock fragments	0.97
D20A:							
Isan	85	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.99				
Isan, depressional	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.99				
Duelm	5	Poor		Fair		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.00
		Too sandy	0.00			Depth to saturated zone	0.89
		Low content of organic matter	0.12				
		Droughty	0.93				
		Too acid	0.97				
D21A:							
Isan, depressional	85	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.99				
Isan	15	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.99				
D23A:							
Southhaven	90	Fair		Good		Good	
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D23A:							
Dorset	5	Fair		Good		Poor	
		Low content of organic matter	0.12			Rock fragments	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.91			Hard to reclaim	0.50
		Too acid	0.92				
Mosford	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.97				
D24A:							
Sedgeville, occasionally flooded	85	Fair		Poor		Poor	
		Low content of organic matter	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
						Rock fragments	0.97
Elkriver, occasionally flooded	15	Fair		Fair		Fair	
		Low content of organic matter	0.05	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Too acid	0.61				
D25A:							
Soderville, terrace	90	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.53	Too sandy	0.14
		Low content of organic matter	0.12			Depth to saturated zone	0.53
		Too sandy	0.14				
		Droughty	0.80				
		Too acid	0.84				
Forada	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.97				
D26A:							
Foldahl, MAP >25	90	Poor		Fair		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.00
		Too sandy	0.00			Depth to saturated zone	0.89
		Low content of organic matter	0.12				
		Too acid	0.95				
Hubbard	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.81				
		Too acid	0.92				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D26A:							
Isan	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.99				
D27A:							
Dorset, loamy substratum	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Too acid	0.92			Hard to reclaim	0.50
Dorset	15	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.56			Hard to reclaim	0.50
		Too acid	0.92				
Southhaven	5	Fair		Good		Good	
		Too acid	0.97				
D28B:							
Urban land	75	Not rated		Not rated		Not rated	
Bygland, MAP >25	20	Poor		Fair		Poor	
		Too clayey	0.00	Shrink-swell	0.71	Too clayey	0.00
		Low content of organic matter	0.12				
		Water erosion	0.90				
		Too acid	0.97				
Bygland, sandy substratum	5	Fair		Fair		Fair	
		Low content of organic matter	0.12	Shrink-swell	0.72	Depth to saturated zone	0.80
		Water erosion	0.90	Depth to saturated zone	0.80		
		Too acid	0.97				
D29B:							
Urban land	70	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	20	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.20				
		Too acid	0.92				
Hubbard	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.77				
		Too acid	0.92				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D29B:							
Mosford	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.97				
D30A:							
Seelyeville, surface drained	45	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Markey, surface drained	45	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Mineral soil, surface drained	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.99				
D31A:							
Urban land	70	Not rated		Not rated		Not rated	
Duelm	20	Poor		Fair		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.00
		Too sandy	0.00			Depth to saturated zone	0.89
		Low content of organic matter	0.12				
		Droughty	0.93				
		Too acid	0.97				
Hubbard	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.77				
		Too acid	0.92				
Isan	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.99				
D33B:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.56			Hard to reclaim	0.50
		Too acid	0.92				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D33B:							
Verndale, acid substratum	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
Hubbard	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.81				
		Too acid	0.92				
D33C:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Fair		Good		Poor	
		Low content of organic matter	0.12			Rock fragments	0.00
		Too sandy	0.30			Too sandy	0.30
		Droughty	0.91			Hard to reclaim	0.50
		Too acid	0.92			Slope	0.84
Verndale, acid substratum	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.68				
		Droughty	0.98				
Hubbard	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.37
		Low content of organic matter	0.12				
		Droughty	0.60				
		Too acid	0.92				
D34B:							
Urban land	75	Not rated		Not rated		Not rated	
Hubbard	20	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of organic matter	0.12				
		Droughty	0.77				
		Too acid	0.92				
Mosford	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D35A:							
Elkriver, occasionally flooded	70	Fair		Fair		Fair	
		Low content of organic matter	0.05	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Too acid	0.61				
Fordum, occasionally flooded	20	Fair		Poor		Poor	
		Low content of organic matter	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.92			Rock fragments	0.00
						Hard to reclaim	0.50
Udipsamments	5	Not rated		Not rated		Not rated	
Winterfield, occasionally flooded	5	Poor		Fair		Poor	
		Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
		Wind erosion	0.00			Depth to saturated zone	0.14
		Low content of organic matter	0.12			Rock fragments	0.88
		Too acid	0.95				
D37F:							
Dorset, bedrock substratum	70	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Low content of organic matter	0.12			Too sandy	0.00
		Droughty	0.56			Rock fragments	0.00
		Too acid	0.92			Hard to reclaim	0.50
Rock outcrop	20	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	10	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.01			Too sandy	0.01
		Low content of organic matter	0.12				
		Droughty	0.20				
		Too acid	0.92				
D40A:							
Kratka, thick solum	80	Poor		Poor		Poor	
		Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
		Wind erosion	0.00			Depth to saturated zone	0.00
		Low content of organic matter	0.12	Shrink-swell	0.99		
		Too acid	0.92				
Duelm	10	Poor		Fair		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.00
		Too sandy	0.00			Depth to saturated zone	0.89
		Low content of organic matter	0.12				
		Droughty	0.93				
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
D40A:							
Foldahl, MAP >25	10	Poor		Fair		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.00
		Too sandy	0.00			Depth to saturated zone	0.89
		Low content of organic matter	0.12				
		Too acid	0.95				
D41C:							
Urban land	75	Not rated		Not rated		Not rated	
Waukon	20	Fair		Fair		Good	
		Low content of organic matter	0.12	Shrink-swell	0.98		
Braham	5	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.36
		Low content of organic matter	0.12	Shrink-swell	0.98	Depth to saturated zone	0.89
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
D43A:							
Gonvick, terrace	85	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Carbonate content	0.97				
Braham	15	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.36
		Low content of organic matter	0.12	Shrink-swell	0.98	Depth to saturated zone	0.89
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
GP:							
Pits, gravel	80	Not rated		Not rated		Not rated	
Udipsamments	20	Not rated		Not rated		Not rated	
L2B:							
Malardi	65	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
		Droughty	0.75			Hard to reclaim	0.92
Hawick	25	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.26			Hard to reclaim	0.68
Rasset	5	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L2B:							
Eden Prairie	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.92				
		Droughty	0.99				
L2C:							
Malardi	60	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
		Droughty	0.75			Hard to reclaim	0.92
Hawick	25	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.26			Hard to reclaim	0.68
						Slope	0.84
Tomall	10	Good		Good		Fair	
						Hard to reclaim	0.92
Crowfork	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.10
		Too sandy	0.10			Rock fragments	0.97
		Low content of organic matter	0.12				
		Too acid	0.84				
L2D:							
Malardi	55	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.48			Slope	0.16
						Hard to reclaim	0.92
Hawick	30	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Slope	0.00
						Rock fragments	0.00
		Droughty	0.26			Hard to reclaim	0.68
Tomall	10	Good		Good		Fair	
						Hard to reclaim	0.92
Crowfork	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.10
		Too sandy	0.10			Slope	0.16
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.84				
L2E:							
Malardi	55	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Low content of organic matter	0.12			Too sandy	0.00
						Rock fragments	0.00
		Droughty	0.48			Hard to reclaim	0.92

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L2E:							
Hawick	30	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Low content of organic matter	0.12			Too sandy	0.00
						Rock fragments	0.00
		Droughty	0.26			Hard to reclaim	0.68
Tomall	15	Good		Good		Fair	
						Hard to reclaim	0.92
L3A:							
Rasset	90	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
Malardi	8	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
						Hard to reclaim	0.92
		Droughty	0.75				
Eden Prairie	2	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.92				
		Droughty	0.99				
L3B:							
Rasset	80	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
Malardi	15	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
						Hard to reclaim	0.92
		Droughty	0.75				
Eden Prairie	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.92				
		Droughty	0.99				
L3C:							
Rasset	75	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
Malardi	10	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
						Hard to reclaim	0.92
		Droughty	0.75				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L3C:							
Tomall	10	Good		Good		Fair Hard to reclaim	0.92
Eden Prairie	5	Poor Too sandy Low content of organic matter Too acid Droughty	0.00 0.12 0.92 0.99	Good		Poor Too sandy	0.00
L4B:							
Crowfork	90	Poor Wind erosion Too sandy Low content of organic matter Too acid	0.00 0.10 0.12 0.84	Good		Fair Too sandy Rock fragments	0.10 0.97
Eden Prairie	10	Poor Too sandy Low content of organic matter Too acid Droughty	0.00 0.12 0.92 0.99	Good		Poor Too sandy	0.00
L4C:							
Crowfork	90	Poor Wind erosion Too sandy Low content of organic matter Too acid	0.00 0.10 0.12 0.84	Good		Fair Too sandy Rock fragments	0.10 0.97
Eden Prairie	10	Poor Too sandy Low content of organic matter Too acid Droughty	0.00 0.12 0.92 0.99	Good		Poor Too sandy	0.00
L4D:							
Crowfork	85	Poor Wind erosion Too sandy Low content of organic matter Too acid	0.00 0.10 0.12 0.84	Good		Poor Slope Too sandy Rock fragments	0.00 0.10 0.97
Eden Prairie	15	Poor Too sandy Low content of organic matter Too acid Droughty	0.00 0.12 0.92 0.99	Good		Poor Too sandy	0.00

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L6A:							
Biscay	85	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
						Hard to reclaim	0.68
Biscay, depressional	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
						Hard to reclaim	0.68
Mayer	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Carbonate content	0.84			Hard to reclaim	0.68
						Carbonate content	0.84
L7A:							
Biscay, depressional	80	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
						Hard to reclaim	0.68
Biscay	15	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
						Hard to reclaim	0.68
Mayer	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Carbonate content	0.84			Hard to reclaim	0.68
						Carbonate content	0.84
L8A:							
Darfur	95	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.97				
Dassel	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.97				
L9A:							
Minnetonka	90	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too clayey	0.00	Shrink-swell	0.55	Too clayey	0.00
		Too acid	0.97				
Depressional soil	10	Poor		Poor		Poor	
		Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.50	Shrink-swell	0.47	Too clayey	0.00
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L10B:							
Kasota	80	Poor		Fair		Poor	
		Too clayey	0.00	Shrink-swell	0.97	Too clayey	0.00
		Low content of organic matter	0.02				
		Too acid	0.92				
Eden Prairie	10	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.92				
		Droughty	0.99				
Wet soil in swales	10	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too clayey	0.00	Shrink-swell	0.55	Too clayey	0.00
		Too acid	0.97				
L11B:							
Grays	90	Fair		Fair		Fair	
		Low content of organic matter	0.08	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Water erosion	0.90				
		Too acid	0.95				
Kasota	5	Poor		Fair		Poor	
		Too clayey	0.00	Shrink-swell	0.97	Too clayey	0.00
		Low content of organic matter	0.02				
		Too acid	0.92				
Crowfork	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.10
		Too sandy	0.10			Rock fragments	0.97
		Low content of organic matter	0.12				
		Too acid	0.84				
L12A:							
Muskego, frequently flooded	30	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Blue Earth, frequently flooded	30	Fair		Poor		Poor	
		Carbonate content	0.80	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.95	Content of organic matter	0.94
Houghton, frequently flooded	30	Not rated		Not rated		Not rated	
Oshawa, frequently flooded	10	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L13A:							
Klossner, drained	80	Not rated		Poor Depth to saturated zone	0.00	Not rated	
Mineral soil, drained	15	Fair Low content of organic matter	0.12	Poor Depth to saturated zone Shrink-swell	0.00 0.95	Poor Depth to saturated zone	0.00
Houghton, drained	5	Not rated		Not rated		Not rated	
L14A:							
Houghton, drained	80	Not rated		Not rated		Not rated	
Klossner, drained	10	Not rated		Poor Depth to saturated zone	0.00	Not rated	
Mineral soil, drained	10	Fair Low content of organic matter	0.12	Poor Depth to saturated zone Shrink-swell	0.00 0.95	Poor Depth to saturated zone	0.00
L15A:							
Klossner, ponded	30	Not rated		Poor Depth to saturated zone	0.00	Not rated	
Okoboji, ponded	30	Fair Too clayey Water erosion	0.08 0.99	Poor Depth to saturated zone Shrink-swell	0.00 0.12	Poor Depth to saturated zone Too clayey	0.00 0.08
Glencoe, ponded	30	Good		Poor Depth to saturated zone Shrink-swell	0.00 0.93	Poor Depth to saturated zone	0.00
Houghton, ponded	10	Not rated		Not rated		Not rated	
L16A:							
Muskego, ponded	30	Not rated		Poor Depth to saturated zone	0.00	Not rated	
Blue Earth, ponded	30	Fair Carbonate content	0.80	Poor Depth to saturated zone Shrink-swell	0.00 0.95	Poor Depth to saturated zone Content of organic matter	0.00 0.94
Houghton, ponded	30	Not rated		Not rated		Not rated	
Klossner, ponded	10	Not rated		Poor Depth to saturated zone	0.00	Not rated	

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L17B:							
Angus	50	Fair		Fair		Good	
		Low content of organic matter	0.12	Shrink-swell	0.99		
		Too acid	0.97				
		Water erosion	0.99				
Malardi	30	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
		Droughty	0.75			Hard to reclaim	0.92
Moon	10	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.36
		Low content of organic matter	0.12	Shrink-swell	0.99	Depth to saturated zone	0.89
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
Cordova	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.84	Shrink-swell	0.99	Too clayey	0.94
		Too clayey	0.95				
L18A:							
Shields	85	Poor		Poor		Poor	
		Too clayey	0.00	Depth to saturated zone	0.00	Too clayey	0.00
		Low content of organic matter	0.50	Shrink-swell	0.12	Depth to saturated zone	0.00
		Too acid	0.92				
		Water erosion	0.99				
Lerdal	10	Poor		Fair		Poor	
		Too clayey	0.00	Depth to saturated zone	0.22	Too clayey	0.00
		Low content of organic matter	0.50	Shrink-swell	0.56	Depth to saturated zone	0.22
		Too acid	0.68				
		Water erosion	0.99				
Mazaska	5	Poor		Poor		Poor	
		Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.12	Shrink-swell	0.56	Too clayey	0.00
		Too acid	0.68				
		Carbonate content	0.97				
L19B:							
Moon	85	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.36
		Low content of organic matter	0.12	Shrink-swell	0.99	Depth to saturated zone	0.89
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L19B:							
Finchford	15	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01			Rock fragments	0.88
		Droughty	0.06			Hard to reclaim	0.98
		Low content of organic matter	0.12				
L20B:							
Fedji, silty substratum	85	Poor		Fair		Poor	
		Too sandy	0.00	Shrink-swell	0.99	Too sandy	0.00
		Wind erosion	0.00				
		Low content of organic matter	0.12				
		Water erosion	0.90				
		Too acid	0.95				
Finchford	15	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01			Rock fragments	0.88
		Droughty	0.06			Hard to reclaim	0.98
		Low content of organic matter	0.12				
L21A:							
Canisteo	80	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Carbonate content	0.92			Carbonate content	0.92
						Rock fragments	0.97
Cordova	15	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.84	Shrink-swell	0.99	Too clayey	0.94
		Too clayey	0.95				
Glencoe	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.95		
L22C2:							
Lester, eroded	70	Fair		Fair		Fair	
		Low content of organic matter	0.88	Shrink-swell	0.97	Slope	0.96
		Too acid	0.97				
		Carbonate content	0.97				
Angus	15	Fair		Fair		Good	
		Low content of organic matter	0.12	Shrink-swell	0.99		
		Too acid	0.97				
		Water erosion	0.99				
Terril	12	Good		Good		Good	

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L22C2:							
Hamel	3	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.99		
L22D2:							
Lester, eroded	80	Fair		Fair		Poor	
		Low content of organic matter	0.88	Shrink-swell	0.97	Slope	0.00
		Too acid	0.97				
		Carbonate content	0.97				
Terril	10	Good		Good		Good	
Hamel	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.99		
Ridgeton	5	Good		Good		Fair	
						Slope	0.84
L22E:							
Lester, morainic	75	Fair		Fair		Poor	
		Low content of organic matter	0.88	Slope	0.18	Slope	0.00
				Shrink-swell	0.98		
		Too acid	0.97				
		Carbonate content	0.97				
Terril	15	Good		Good		Good	
Hamel	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
Ridgeton	5	Good		Good		Fair	
						Slope	0.04
L22F:							
Lester, morainic	75	Fair		Poor		Poor	
		Low content of organic matter	0.88	Slope	0.00	Slope	0.00
				Shrink-swell	0.98		
		Too acid	0.97				
		Carbonate content	0.97				
Terril	10	Good		Good		Good	
Ridgeton	10	Good		Fair		Poor	
				Slope	0.50	Slope	0.00
Hamel	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
L23A:							
Cordova	85	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.84	Shrink-swell	0.99	Too clayey	0.94
		Too clayey	0.95				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L23A:							
Glencoe	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.95		
Nessel	5	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Too acid	0.92	Shrink-swell	0.97		
L24A:							
Glencoe, depressional	90	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.95		
Cordova	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.84	Shrink-swell	0.99	Too clayey	0.94
		Too clayey	0.95				
L25A:							
Le Sueur	80	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.12	Depth to saturated zone	0.12
		Too acid	0.97	Shrink-swell	0.99		
		Carbonate content	0.97				
Cordova	15	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.84	Shrink-swell	0.99	Too clayey	0.94
		Too clayey	0.95				
Angus	5	Fair		Fair		Good	
		Low content of organic matter	0.12	Shrink-swell	0.99		
		Too acid	0.97				
		Water erosion	0.99				
L26A:							
Shorewood	85	Poor		Fair		Poor	
		Too clayey	0.00	Depth to saturated zone	0.14	Too clayey	0.00
		Too acid	0.68			Depth to saturated zone	0.14
				Shrink-swell	0.76		
Minnetonka	10	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too clayey	0.00	Shrink-swell	0.55	Too clayey	0.00
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L26A:							
Good Thunder--------	5	Poor		Fair		Poor	
		Too clayey	0.00	Depth to saturated zone	0.88	Too clayey	0.00
		Low content of organic matter	0.50	Shrink-swell	0.96	Depth to saturated zone	0.88
		Too acid	0.97				
		Water erosion	0.99				
L26B:							
Shorewood----------	90	Poor		Fair		Poor	
		Too clayey	0.00	Depth to saturated zone	0.14	Too clayey	0.00
		Too acid	0.97	Shrink-swell	0.76	Depth to saturated zone	0.14
Good Thunder--------	5	Poor		Fair		Poor	
		Too clayey	0.00	Depth to saturated zone	0.88	Too clayey	0.00
		Low content of organic matter	0.50	Shrink-swell	0.96	Depth to saturated zone	0.88
		Too acid	0.97				
		Water erosion	0.99				
Minnetonka----------	5	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too clayey	0.00	Shrink-swell	0.55	Too clayey	0.00
		Too acid	0.97				
L26C2:							
Shorewood, eroded---	95	Poor		Fair		Poor	
		Too clayey	0.00	Depth to saturated zone	0.14	Too clayey	0.00
		Too acid	0.68	Shrink-swell	0.76	Depth to saturated zone	0.14
						Slope	0.96
Minnetonka----------	5	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too clayey	0.00	Shrink-swell	0.55	Too clayey	0.00
		Too acid	0.97				
L27A:							
Suckercreek, frequently flooded	85	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
Suckercreek, occasionally flooded----------	10	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
Hanlon, occasionally flooded----------	5	Good		Fair		Fair	
				Depth to saturated zone	0.89	Depth to saturated zone	0.89

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L28A:							
Suckercreek, occasionally flooded	80	Good		Poor Depth to saturated zone	0.00	Poor Depth to saturated zone	0.00
Suckercreek, frequently flooded	10	Good		Poor Depth to saturated zone	0.00	Poor Depth to saturated zone	0.00
Hanlon, occasionally flooded	10	Good		Fair Depth to saturated zone	0.89	Fair Depth to saturated zone	0.89
L29A:							
Hanlon, occasionally flooded	80	Good		Fair Depth to saturated zone	0.89	Fair Depth to saturated zone	0.89
Suckercreek, occasionally flooded	10	Good		Poor Depth to saturated zone	0.00	Poor Depth to saturated zone	0.00
Suckercreek, frequently flooded	10	Good		Poor Depth to saturated zone	0.00	Poor Depth to saturated zone	0.00
L30A:							
Medo, surface drained	65	Not rated		Poor Depth to saturated zone	0.00	Not rated	
Medo, drained	20	Not rated		Poor Depth to saturated zone	0.00	Not rated	
Mineral soil, drained	15	Fair Low content of organic matter	0.12	Poor Depth to saturated zone	0.00	Poor Depth to saturated zone	0.00
L31A:							
Medo, ponded	30	Not rated		Poor Depth to saturated zone	0.00	Not rated	
Dassel, ponded	30	Fair Low content of organic matter	0.12	Poor Depth to saturated zone	0.00	Poor Depth to saturated zone	0.00

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L31A:							
Biscay, ponded	30	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
						Hard to reclaim	0.68
Houghton, ponded	5	Not rated		Not rated		Not rated	
Muskego, ponded	5	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
L32D:							
Hawick	75	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.98	Slope	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
						Hard to reclaim	0.68
		Droughty	0.29				
Crowfork	15	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.98	Slope	0.00
		Too sandy	0.10			Too sandy	0.10
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.92				
		Droughty	0.93				
Tomall	10	Good		Good		Fair	
						Hard to reclaim	0.92
L32F:							
Hawick	75	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
						Hard to reclaim	0.68
		Droughty	0.29				
Crowfork	15	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.10			Too sandy	0.10
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.92				
		Droughty	0.93				
Tomall	10	Good		Good		Fair	
						Hard to reclaim	0.92
L35A:							
Lerdal	80	Fair		Fair		Fair	
		Too clayey	0.02	Depth to saturated zone	0.22	Too clayey	0.01
		Low content of organic matter	0.50			Depth to saturated zone	0.22
				Shrink-swell	0.53		
		Too acid	0.99				
Mazaska	10	Poor		Poor		Poor	
		Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.12				
				Shrink-swell	0.56	Too clayey	0.00
		Too acid	0.68				
		Carbonate content	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L35A:							
Cordova	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.84	Shrink-swell	0.99	Too clayey	0.94
		Too clayey	0.95				
Le Sueur	5	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.12	Depth to saturated zone	0.12
		Too acid	0.97	Shrink-swell	0.99		
		Carbonate content	0.97				
L36A:							
Hamel, overwash	50	Good		Fair		Fair	
				Depth to saturated zone	0.14	Depth to saturated zone	0.14
Hamel	43	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.99		
Terril	5	Good		Good		Good	
Glencoe	2	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.95		
L37B:							
Angus, morainic	80	Fair		Fair		Good	
		Low content of organic matter	0.12	Shrink-swell	0.99		
		Too acid	0.97				
		Water erosion	0.99				
Angus, eroded	10	Fair		Fair		Good	
		Low content of organic matter	0.88	Shrink-swell	0.98		
		Too acid	0.97				
		Carbonate content	0.97				
Le Sueur	5	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.12	Depth to saturated zone	0.12
		Too acid	0.97	Shrink-swell	0.99		
		Carbonate content	0.97				
Cordova	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.84	Shrink-swell	0.99	Too clayey	0.94
		Too clayey	0.95				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L38A:							
Rushriver, occasionally flooded	75	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
						Rock fragments	0.72
Oshawa, frequently flooded	15	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
Minneiska, occasionally flooded	5	Good		Fair		Fair	
				Depth to saturated zone	0.89	Depth to saturated zone	0.89
Algansee, occasionally flooded	5	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Low content of organic matter	0.12			Too sandy	0.22
		Too sandy	0.22				
		Droughty	0.80				
		Too acid	0.97				
L39A:							
Minneiska, occasionally flooded	70	Good		Fair		Fair	
				Depth to saturated zone	0.89	Depth to saturated zone	0.89
Rushriver, occasionally flooded	15	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
						Rock fragments	0.72
Oshawa, frequently flooded	10	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
Algansee, occasionally flooded	5	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Low content of organic matter	0.12			Too sandy	0.22
		Too sandy	0.22				
		Droughty	0.80				
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L40B:							
Angus	45	Fair		Fair		Good	
		Low content of organic matter	0.12	Shrink-swell	0.99		
		Too acid	0.97				
		Water erosion	0.99				
Kilkenny	40	Fair		Fair		Fair	
		Too clayey	0.02	Depth to saturated zone	0.24	Too clayey	0.01
		Low content of organic matter	0.12	Shrink-swell	0.98	Depth to saturated zone	0.24
		Too acid	0.68				
Lerdal	10	Fair		Fair		Fair	
		Too clayey	0.02	Depth to saturated zone	0.22	Too clayey	0.01
		Low content of organic matter	0.12	Shrink-swell	0.63	Depth to saturated zone	0.22
		Too acid	0.54			Too acid	0.98
		Carbonate content	0.97				
		Water erosion	0.99				
Mazaska	5	Poor		Poor		Poor	
		Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.12	Shrink-swell	0.56	Too clayey	0.00
		Too acid	0.68				
		Carbonate content	0.97				
L41C2:							
Lester, eroded	45	Fair		Fair		Fair	
		Low content of organic matter	0.88	Shrink-swell	0.97	Slope	0.96
		Too acid	0.97				
		Carbonate content	0.97				
Kilkenny, eroded	40	Fair		Fair		Fair	
		Too clayey	0.02	Depth to saturated zone	0.89	Too clayey	0.01
		Low content of organic matter	0.50	Shrink-swell	0.91	Depth to saturated zone	0.89
		Too acid	0.68			Slope	0.96
Terril	10	Good		Good		Good	
Derrynane	5	Poor		Poor		Poor	
		Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.41	Too clayey	0.00
L41D2:							
Lester, eroded	45	Fair		Fair		Poor	
		Low content of organic matter	0.88	Shrink-swell	0.97	Slope	0.00
		Too acid	0.97				
		Carbonate content	0.97				
Kilkenny, eroded	35	Fair		Fair		Poor	
		Too clayey	0.02	Depth to saturated zone	0.89	Slope	0.00
		Low content of organic matter	0.50	Shrink-swell	0.91	Too clayey	0.01
		Too acid	0.68			Depth to saturated zone	0.89

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L41D2:							
Terril	10	Good		Good		Good	
Derrynane	5	Poor		Poor		Poor	
		Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.41	Too clayey	0.00
Ridgeton	5	Good		Good		Fair	
						Slope	0.84
L41E:							
Lester	45	Fair		Fair		Poor	
		Low content of organic matter	0.88	Slope	0.18	Slope	0.00
		Too acid	0.97	Shrink-swell	0.98		
		Carbonate content	0.97				
Kilkenny	40	Fair		Fair		Poor	
		Too clayey	0.02	Slope	0.18	Slope	0.00
		Low content of organic matter	0.12	Depth to saturated zone	0.89	Too clayey	0.01
		Too acid	0.68	Shrink-swell	0.99	Depth to saturated zone	0.89
Terril	5	Good		Good		Good	
Derrynane	5	Fair		Poor		Poor	
		Too clayey	0.82	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.45	Too clayey	0.82
Ridgeton	5	Good		Good		Fair	
						Slope	0.04
L41F:							
Lester	45	Fair		Poor		Poor	
		Low content of organic matter	0.88	Slope	0.00	Slope	0.00
		Too acid	0.97	Shrink-swell	0.98		
		Carbonate content	0.97				
Kilkenny	35	Fair		Poor		Poor	
		Too clayey	0.02	Slope	0.00	Slope	0.00
		Low content of organic matter	0.12	Depth to saturated zone	0.89	Too clayey	0.01
		Too acid	0.68	Shrink-swell	0.99	Depth to saturated zone	0.89
Ridgeton	10	Good		Fair		Poor	
				Slope	0.50	Slope	0.00
Terril	5	Good		Good		Good	
Derrynane	5	Fair		Poor		Poor	
		Too clayey	0.82	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.45	Too clayey	0.82

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L42B:							
Kingsley	70	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.88
		Too acid	0.92				
Gotham	25	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.97
		Low content of organic matter	0.12				
		Too acid	0.97				
Grays	5	Fair		Fair		Fair	
		Low content of organic matter	0.08	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Water erosion	0.90				
		Too acid	0.95				
L42C:							
Kingsley	70	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.88
		Too acid	0.92			Slope	0.96
Gotham	25	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.96
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
Grays	5	Fair		Fair		Fair	
		Low content of organic matter	0.08	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Water erosion	0.90				
		Too acid	0.95				
L42D:							
Kingsley	70	Fair		Good		Fair	
		Low content of organic matter	0.12			Slope	0.04
		Too acid	0.92			Rock fragments	0.88
Gotham	25	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.04
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
Grays	5	Fair		Fair		Fair	
		Low content of organic matter	0.08	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Water erosion	0.90				
		Too acid	0.95				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L42E:							
Kingsley	70	Fair		Fair		Poor	
		Low content of organic matter	0.12	Slope	0.18	Slope	0.00
		Too acid	0.92			Rock fragments	0.88
Gotham	25	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.18	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
Grays	5	Fair		Fair		Fair	
		Low content of organic matter	0.08	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Water erosion	0.90				
		Too acid	0.95				
L42F:							
Kingsley	70	Fair		Poor		Poor	
		Low content of organic matter	0.12	Slope	0.00	Slope	0.00
		Too acid	0.92			Rock fragments	0.88
Gotham	25	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
Grays	5	Fair		Fair		Fair	
		Low content of organic matter	0.08	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Water erosion	0.90				
		Too acid	0.95				
L43A:							
Brouillett, occasionally flooded	80	Good		Fair		Fair	
				Depth to saturated zone	0.14	Depth to saturated zone	0.14
				Low strength	0.22		
Minneiska, occasionally flooded	10	Good		Fair		Fair	
				Depth to saturated zone	0.89	Depth to saturated zone	0.89
Rushriver, occasionally flooded	10	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
						Rock fragments	0.72

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L44A:							
Nessel	85	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Too acid	0.92	Shrink-swell	0.97		
Cordova	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.84	Shrink-swell	0.99	Too clayey	0.94
		Too clayey	0.95				
Angus	5	Fair		Fair		Good	
		Low content of organic matter	0.12	Shrink-swell	0.99		
		Too acid	0.97				
		Water erosion	0.99				
L45A:							
Dundas	65	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Too acid	0.92	Shrink-swell	0.99		
Cordova	25	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.84	Shrink-swell	0.99	Too clayey	0.94
		Too clayey	0.95				
Nessel	5	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Too acid	0.92	Shrink-swell	0.97		
Glencoe	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.95		
L46A:							
Tomall	80	Good		Good		Fair	
						Hard to reclaim	0.92
Rasset	10	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
Malardi	10	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
		Droughty	0.75			Hard to reclaim	0.92

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L47A:							
Eden Prairie	85	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.92				
		Droughty	0.99				
Malardi	10	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
		Droughty	0.75			Hard to reclaim	0.92
Rasset	5	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
L47B:							
Eden Prairie	80	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.92				
		Droughty	0.99				
Malardi	10	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
		Droughty	0.75			Hard to reclaim	0.92
Rasset	10	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
L47C:							
Eden Prairie	70	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.92				
		Droughty	0.99				
Malardi	10	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
		Droughty	0.75			Hard to reclaim	0.92
Rasset	10	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L47C:							
Hawick	10	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
						Hard to reclaim	0.68
		Droughty	0.26			Slope	0.84
L49A:							
Klossner, surface drained	65	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Klossner, drained	20	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Mineral soil, drained	15	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.95		
L50A:							
Houghton, surface drained	40	Not rated		Not rated		Not rated	
Muskego, surface drained	40	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Klossner, drained	10	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Mineral soil, drained	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.95		
L52C:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Fair		Fair		Good	
		Low content of organic matter	0.88	Shrink-swell	0.97		
		Too acid	0.97				
		Carbonate content	0.97				
Kingsley	5	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.88
		Too acid	0.92				
L52E:							
Urban land	75	Not rated		Not rated		Not rated	

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L52E:							
Lester	20	Fair		Fair		Poor	
		Low content of organic matter	0.88	Slope	0.50	Slope	0.00
				Shrink-swell	0.98		
		Too acid	0.97				
		Carbonate content	0.97				
Kingsley	5	Fair		Fair		Poor	
		Low content of organic matter	0.12	Slope	0.50	Slope	0.00
						Rock fragments	0.88
		Too acid	0.92				
L53B:							
Urban land	70	Not rated		Not rated		Not rated	
Moon	20	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.36
		Low content of organic matter	0.12			Depth to saturated zone	0.89
				Shrink-swell	0.99		
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
Lester	10	Fair		Fair		Good	
		Low content of organic matter	0.88	Shrink-swell	0.97		
		Too acid	0.97				
		Carbonate content	0.97				
L54A:							
Urban land	70	Not rated		Not rated		Not rated	
Dundas	20	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Too acid	0.92	Shrink-swell	0.99		
Nessel	10	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.89	Depth to saturated zone	0.89
		Too acid	0.92	Shrink-swell	0.97		
L55B:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
						Hard to reclaim	0.92
		Droughty	0.75				
Rasset	5	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L55B:							
Eden Prairie	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12				
		Too acid	0.92				
		Droughty	0.99				
L55C:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
		Droughty	0.75			Hard to reclaim	0.92
						Slope	0.96
Hawick	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.26			Hard to reclaim	0.68
						Slope	0.96
Crowfork	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.10
		Too sandy	0.10			Slope	0.96
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.84				
L56A:							
Muskego, frequently flooded	45	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Klossner, frequently flooded	45	Not rated		Poor		Not rated	
				Depth to saturated zone	0.00		
Suckercreek, frequently flooded	10	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
L58B:							
Koronis	60	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.97
Kingsley	25	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.88
		Too acid	0.92				
Forestcity	10	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L58B:							
Gotham	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.97
		Low content of organic matter	0.12				
		Too acid	0.97				
L58C2:							
Koronis, eroded	55	Fair		Good		Fair	
		Low content of organic matter	0.12			Slope	0.96
						Rock fragments	0.97
Kingsley, eroded	25	Fair		Good		Fair	
		Low content of organic matter	0.12			Rock fragments	0.88
		Too acid	0.92			Slope	0.96
Forestcity	15	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		
Gotham	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.84
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
L58D2:							
Koronis, eroded	55	Fair		Good		Poor	
		Low content of organic matter	0.12			Slope	0.00
						Rock fragments	0.97
Kingsley, eroded	25	Fair		Good		Poor	
		Low content of organic matter	0.12			Slope	0.00
		Too acid	0.92			Rock fragments	0.88
Forestcity	15	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		
Gotham	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
L58E:							
Koronis	55	Fair		Fair		Poor	
		Low content of organic matter	0.12	Slope	0.18	Slope	0.00
						Rock fragments	0.97
Kingsley	25	Fair		Fair		Poor	
		Low content of organic matter	0.12	Slope	0.18	Slope	0.00
		Too acid	0.92			Rock fragments	0.88

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L58E:							
Forestcity	15	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		
Gotham	5	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.18	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.97
		Too acid	0.97				
L59A:							
Forestcity	70	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		
Lundlake, depressional	25	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		
Marcellon	5	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Too acid	0.92			Rock fragments	0.88
						Hard to reclaim	0.98
L60B:							
Angus	65	Fair		Fair		Good	
		Low content of organic matter	0.12	Shrink-swell	0.99		
		Too acid	0.97				
		Water erosion	0.99				
Moon	30	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.36
		Low content of organic matter	0.12	Shrink-swell	0.99	Depth to saturated zone	0.89
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
Hamel	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.99		
L61C2:							
Lester, eroded	60	Fair		Fair		Fair	
		Low content of organic matter	0.88	Shrink-swell	0.97	Slope	0.96
		Too acid	0.97				
		Carbonate content	0.97				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L61C2:							
Metea, eroded-------	25	Poor		Fair		Fair	
		Wind erosion	0.00	Shrink-swell	0.99	Too sandy	0.36
		Low content of organic matter	0.12			Slope	0.96
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
Terril----------	12	Good		Good		Good	
Hamel----------	3	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.99		
L61D2:							
Lester, eroded------	55	Fair		Fair		Poor	
		Low content of organic matter	0.88	Shrink-swell	0.97	Slope	0.00
		Too acid	0.97				
		Carbonate content	0.97				
Metea, eroded-------	25	Poor		Fair		Poor	
		Wind erosion	0.00	Shrink-swell	0.99	Slope	0.00
		Low content of organic matter	0.12			Too sandy	0.36
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
Terril----------	12	Good		Good		Good	
Ridgeton----------	5	Good		Good		Fair	
						Slope	0.84
Hamel----------	3	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.99		
L61E:							
Lester----------	55	Fair		Fair		Poor	
		Low content of organic matter	0.88	Slope	0.18	Slope	0.00
				Shrink-swell	0.98		
		Too acid	0.97				
		Carbonate content	0.97				
Metea----------	25	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.18	Slope	0.00
		Low content of organic matter	0.12	Shrink-swell	0.99	Too sandy	0.36
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
Terril----------	10	Good		Good		Good	

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L61E:							
Hamel	5	Fair Low content of organic matter	0.12	Poor Depth to saturated zone	0.00	Poor Depth to saturated zone	0.00
Ridgeton	5	Good		Good		Fair Slope	0.04
L62B:							
Koronis	55	Fair Low content of organic matter	0.12	Good		Fair Rock fragments	0.97
Kingsley	20	Fair Low content of organic matter Too acid	0.12 0.92	Good		Fair Rock fragments	0.88
Malardi	20	Poor Too sandy Low content of organic matter Droughty	0.00 0.12 0.48	Good		Poor Too sandy Rock fragments Hard to reclaim	0.00 0.00 0.92
Forestcity	5	Fair Low content of organic matter	0.88	Poor Depth to saturated zone Shrink-swell	0.00 0.97	Poor Depth to saturated zone	0.00
L62C2:							
Koronis, eroded	40	Fair Low content of organic matter	0.12	Good		Fair Slope Rock fragments	0.96 0.97
Kingsley, eroded	25	Fair Low content of organic matter Too acid	0.12 0.92	Good		Fair Rock fragments Slope	0.88 0.96
Malardi, eroded	25	Poor Too sandy Low content of organic matter Droughty	0.00 0.12 0.48	Good		Poor Too sandy Rock fragments Hard to reclaim Slope	0.00 0.00 0.92 0.96
Forestcity	10	Fair Low content of organic matter	0.88	Poor Depth to saturated zone Shrink-swell	0.00 0.97	Poor Depth to saturated zone	0.00
L62D2:							
Koronis, eroded	40	Fair Low content of organic matter	0.12	Good		Fair Slope Rock fragments	0.04 0.97
Kingsley, eroded	25	Fair Low content of organic matter Too acid	0.12 0.92	Good		Fair Slope Rock fragments	0.04 0.88

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L62D2:							
Malardi, eroded	25	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Rock fragments	0.00
		Droughty	0.48			Slope	0.04
						Hard to reclaim	0.92
Forestcity	10	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		
L62E:							
Koronis	40	Fair		Fair		Poor	
		Low content of organic matter	0.12	Slope	0.02	Slope	0.00
						Rock fragments	0.97
Kingsley	25	Fair		Fair		Poor	
		Low content of organic matter	0.12	Slope	0.02	Slope	0.00
						Rock fragments	0.88
		Too acid	0.92				
Malardi	25	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.02	Slope	0.00
		Low content of organic matter	0.12			Too sandy	0.00
						Rock fragments	0.00
		Droughty	0.48			Hard to reclaim	0.92
Forestcity	10	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		
L64A:							
Tadkee	50	Poor		Poor		Poor	
		Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
		Wind erosion	0.00			Depth to saturated zone	0.00
		Low content of organic matter	0.12				
Tadkee, depressional	36	Poor		Poor		Poor	
		Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
		Wind erosion	0.00			Depth to saturated zone	0.00
		Low content of organic matter	0.12				
Better drained soil	8	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.88	Too sandy	0.22
		Low content of organic matter	0.12			Depth to saturated zone	0.88
		Too sandy	0.22				
		Too acid	0.95				
Granby	4	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.00			Too sandy	0.36
		Too sandy	0.36				
		Droughty	0.77				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L64A:							
Less sandy soil	2	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.12				
L70C2:							
Lester, eroded	60	Fair		Fair		Fair	
		Low content of organic matter	0.88	Shrink-swell	0.97	Slope	0.96
		Too acid	0.97				
		Carbonate content	0.97				
Malardi, eroded	25	Fair		Good		Fair	
		Too sandy	0.03			Too sandy	0.03
		Low content of organic matter	0.12			Rock fragments	0.28
		Droughty	0.75			Hard to reclaim	0.92
						Slope	0.96
Terril	12	Good		Good		Good	
Hamel	3	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.99		
L70D2:							
Lester, eroded	55	Fair		Fair		Poor	
		Low content of organic matter	0.88	Shrink-swell	0.97	Slope	0.00
		Too acid	0.97				
		Carbonate content	0.97				
Malardi, eroded	25	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of organic matter	0.12			Slope	0.00
		Droughty	0.48			Rock fragments	0.00
						Hard to reclaim	0.92
Terril	12	Good		Good		Good	
Ridgeton	5	Good		Good		Fair	
						Slope	0.84
Hamel	3	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.99		
L70E:							
Lester	55	Fair		Fair		Poor	
		Low content of organic matter	0.88	Slope	0.02	Slope	0.00
				Shrink-swell	0.98		
		Too acid	0.97				
		Carbonate content	0.97				
Malardi	25	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Low content of organic matter	0.12			Too sandy	0.00
						Rock fragments	0.00
		Droughty	0.48			Hard to reclaim	0.92

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L70E:							
Terril	10	Good		Good		Good	
Hamel	5	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
Ridgeton	5	Good		Good		Fair	
						Slope	0.04
L71C:							
Metea	80	Poor		Fair		Fair	
		Wind erosion	0.00	Shrink-swell	0.99	Too sandy	0.36
		Low content of organic matter	0.12			Slope	0.96
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
Lester	15	Fair		Fair		Fair	
		Low content of organic matter	0.88	Shrink-swell	0.97	Slope	0.96
		Too acid	0.97				
		Carbonate content	0.97				
Moon	5	Poor		Fair		Fair	
		Wind erosion	0.00	Depth to saturated zone	0.89	Too sandy	0.36
		Low content of organic matter	0.12	Shrink-swell	0.99	Depth to saturated zone	0.89
		Too sandy	0.36				
		Too acid	0.97				
		Water erosion	0.99				
L72A:							
Lundlake, depressional	90	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		
Forestcity	10	Good		Poor		Poor	
				Depth to saturated zone	0.00	Depth to saturated zone	0.00
				Shrink-swell	0.97		
L110E:							
Lester	50	Fair		Fair		Poor	
		Low content of organic matter	0.88	Slope	0.32	Slope	0.00
				Shrink-swell	0.98		
		Too acid	0.97				
		Carbonate content	0.97				
Ridgeton	30	Good		Fair		Poor	
				Slope	0.92	Slope	0.00
Cokato	10	Fair		Fair		Poor	
		Low content of organic matter	0.12	Slope	0.32	Slope	0.00
		Carbonate content	0.97				
		Water erosion	0.99				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L110E:							
Belview	6	Fair		Fair		Poor	
		Low content of organic matter	0.12	Slope	0.32	Slope	0.00
		Carbonate content	0.97			Carbonate content	0.97
Hamel	2	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
Terril	2	Good		Good		Good	
L110F:							
Lester	55	Fair		Poor		Poor	
		Low content of organic matter	0.12	Slope	0.00	Slope	0.00
		Too acid	0.97	Shrink-swell	0.99		
Ridgeton	30	Good		Fair		Poor	
				Slope	0.32	Slope	0.00
Cokato	8	Fair		Poor		Poor	
		Low content of organic matter	0.12	Slope	0.00	Slope	0.00
		Carbonate content	0.97				
		Water erosion	0.99				
Belview	4	Fair		Poor		Poor	
		Low content of organic matter	0.12	Slope	0.00	Slope	0.00
		Carbonate content	0.97			Carbonate content	0.97
Terril	2	Good		Good		Good	
Hamel	1	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
L131A:							
Litchfield	85	Poor		Fair		Poor	
		Too sandy	0.00	Depth to saturated zone	0.06	Too sandy	0.00
		Wind erosion	0.00			Depth to saturated zone	0.06
		Low content of organic matter	0.12				
		Too acid	0.95				
Darfur	10	Fair		Poor		Poor	
		Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.97				
Crowfork	5	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.10
		Too sandy	0.10			Rock fragments	0.97
		Low content of organic matter	0.12				
		Too acid	0.84				

Table 15b.--Construction Materials--Continued

Map symbol and component name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
L132A:							
Hamel	50	Fair Low content of organic matter	0.12	Poor Depth to saturated zone Shrink-swell	0.00 0.99	Poor Depth to saturated zone	0.00
Glencoe, depressional	30	Fair Low content of organic matter	0.12	Poor Depth to saturated zone Shrink-swell	0.00 0.95	Poor Depth to saturated zone	0.00
Hamel, overwash	15	Good		Fair Depth to saturated zone	0.14	Fair Depth to saturated zone	0.14
Terril	5	Good		Good		Good	
M-W:							
Water, miscellaneous	100	Not rated		Not rated		Not rated	
U1A:							
Urban land	80	Not rated		Not rated		Not rated	
Udorthents, wet substratum	20	Not rated		Not rated		Not rated	
U2A:							
Udorthents, wet substratum	100	Not rated		Not rated		Not rated	
U3B:							
Udorthents (cut and fill land)	100	Not rated		Not rated		Not rated	
U4A:							
Urban land	70	Not rated		Not rated		Not rated	
Udipsamments (cut and fill land)	30	Not rated		Not rated		Not rated	
U5A:							
Urban land	65	Not rated		Not rated		Not rated	
Udorthents, wet substratum	35	Not rated		Not rated		Not rated	
U6B:							
Urban land	75	Not rated		Not rated		Not rated	
Udorthents (cut and fill land)	25	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 16.--Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D1B:							
Anoka, terrace	55	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.36	Depth to water	1.00
Zimmerman, terrace	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.36	Depth to water	1.00
Kost	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.82	Depth to water	1.00
D1C:							
Anoka, terrace	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.36	Depth to water	1.00
Zimmerman, terrace	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.36	Depth to water	1.00
Kost	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.82	Depth to water	1.00
D2A:							
Elkriver, rarely flooded	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Cutbanks cave	1.00
				Depth to saturated zone	0.46	Depth to water	0.24
Mosford, rarely flooded	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.79	Depth to water	1.00
Elkriver, occasionally flooded	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.91		
D3A:							
Elkriver, occasionally flooded	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.91		
Fordum, frequently flooded	15	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.86		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
D3A:							
Winterfield, occasionally flooded	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.86		
D4A:							
Dorset	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Verndale, acid substratum	8	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Almora	2	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
D4B:							
Dorset	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Verndale, acid substratum	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Almora	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
D4C:							
Dorset	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Verndale, acid substratum	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Almora	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
D5B:							
Dorset	65	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Two Inlets	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
Verndale, acid substratum	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Southhaven	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Cutbanks cave	1.00
				Seepage	0.86	Depth to water	0.54
				Depth to saturated zone	0.09		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D5C:							
Dorset	55	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Two Inlets	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
Southhaven	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Cutbanks cave	1.00
				Seepage	0.86	Depth to water	0.54
				Depth to saturated zone	0.09		
Verndale, acid substratum	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
D5D:							
Dorset	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.01				
Two Inlets	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
		Slope	0.03				
Southhaven	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Cutbanks cave	1.00
				Seepage	0.86	Depth to water	0.54
				Depth to saturated zone	0.09		
Verndale, acid substratum	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
D6A:							
Verndale, acid substratum	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Dorset	7	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Hubbard	3	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
D6B:							
Verndale, acid substratum	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Dorset	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Hubbard	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
D6C:							
Verndale, acid substratum	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Dorset	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Hubbard	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
D7A:							
Hubbard	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Mosford	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.79	Depth to water	1.00
D7B:							
Hubbard	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Mosford	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.79	Depth to water	1.00
D7C:							
Hubbard	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Sandberg	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Mosford	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.79	Depth to water	1.00
D8B:							
Sandberg	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Arvilla, MAP >25	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.53	Depth to water	1.00
D8C:							
Sandberg	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Corliss	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Southhaven	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Cutbanks cave	1.00
				Seepage	0.86	Depth to water	0.54
				Depth to saturated zone	0.09		
D8D:							
Sandberg	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
		Slope	0.02				

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
D8D:							
Corliss----------	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
		Slope	0.04				
Southhaven----------	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Cutbanks cave	1.00
				Seepage	0.86	Depth to water	0.54
				Depth to saturated zone	0.09		
D8E:							
Sandberg----------	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
		Slope	0.32				
Corliss----------	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
		Slope	0.32				
Southhaven----------	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Cutbanks cave	1.00
				Seepage	0.86	Depth to water	0.54
				Depth to saturated zone	0.09		
D10A:							
Forada----------	95	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.91		
Depressional soil---	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.91		
D11A:							
Lindaas----------	80	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.04	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Hard to pack	0.40		
Lindaas, sandy substratum---------	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.08		
Depressional soil---	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Ponding	1.00		
D12B:							
Bygland, MAP >25----	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.04	Depth to saturated zone	0.46	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
D12B:							
Bygland, sandy substratum	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.93	Depth to water	1.00
				Piping	0.29		
				Seepage	0.08		
Lindaas	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.04	Depth to saturated zone	1.00	Slow refill	0.28
				Hard to pack	0.40	Cutbanks cave	0.10
Depressional soil	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
				Ponding	1.00	Cutbanks cave	0.10
D12C2:							
Bygland, MAP >25	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.04	Depth to saturated zone	0.46	Depth to water	1.00
Bygland, sandy substratum	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.93	Depth to water	1.00
				Piping	0.29		
				Seepage	0.08		
Lindaas	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.04	Depth to saturated zone	1.00	Slow refill	0.28
				Hard to pack	0.40	Cutbanks cave	0.10
Depressional soil	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
				Ponding	1.00	Cutbanks cave	0.10
D13A:							
Langola, terrace	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Seepage	0.08		
Duelm	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
				Seepage	0.66	Depth to water	0.06
Hubbard	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
D13B:							
Langola, terrace	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Depth to water	1.00
				Seepage	0.08		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
D13B:							
Hubbard	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Duelm	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Depth to water	0.06
				Seepage	0.66		
D15A:							
Seelyeville, drained	65	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Markey, drained	25	Very limited		Not rated		Very limited	
		Seepage	1.00			Cutbanks cave	1.00
Mineral soil, drained	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.66		
D16A:							
Seelyeville, ponded	45	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Markey, ponded	45	Very limited		Not rated		Very limited	
		Seepage	1.00			Cutbanks cave	1.00
Mineral soil, ponded	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.66		
D17A:							
Duelm	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Depth to water	0.06
				Seepage	0.66		
Isan	8	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.66		
Hubbard	2	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
D18B:							
Braham, terrace	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Slow refill	0.30
						Depth to water	0.06
Duelm	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Depth to water	0.06
				Seepage	0.66		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
D19A:							
Fordum, frequently flooded	65	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.86		
Winterfield, frequently flooded	25	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.86		
Fordum, occasionally flooded	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.06		
D20A:							
Isan	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.66		
Isan, depressional	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.66		
Duelm	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Depth to water	0.06
				Seepage	0.66		
D21A:							
Isan, depressional	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.66		
Isan	15	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.66		
D23A:							
Southhaven	90	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Cutbanks cave	1.00
				Seepage	0.86	Depth to water	0.54
				Depth to saturated zone	0.09		
Dorset	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Mosford	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.79	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
D24A:							
Sedgeville, occasionally flooded	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.75		
Elkriver, occasionally flooded	15	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.91		
D25A:							
Soderville, terrace	90	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Seepage	0.86		
Forada	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.91		
D26A:							
Foldahl, MAP >25	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Depth to water	0.06
				Seepage	0.10		
Hubbard	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Isan	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.66		
D27A:							
Dorset, loamy substratum	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.61	Depth to water	1.00
Dorset	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Southhaven	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Cutbanks cave	1.00
				Seepage	0.86	Depth to water	0.54
				Depth to saturated zone	0.09		
D28B:							
Urban land	75	Not rated		Not rated		Not rated	
Bygland, MAP >25	20	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.04	Depth to saturated zone	0.46	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D28B:							
Bygland, sandy substratum	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.93	Depth to water	1.00
				Piping	0.29		
				Seepage	0.08		
D29B:							
Urban land	70	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Hubbard	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Mosford	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.79	Depth to water	1.00
D30A:							
Seelyeville, surface drained	45	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Markey, surface drained	45	Very limited		Not rated		Very limited	
		Seepage	1.00			Cutbanks cave	1.00
Mineral soil, surface drained	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.66		
D31A:							
Urban land	70	Not rated		Not rated		Not rated	
Duelm	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Depth to water	0.06
				Seepage	0.66		
Hubbard	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Isan	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.66		
D33B:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
D33B:							
Verndale, acid substratum	5	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.86	Very limited Depth to water	 1.00
Hubbard	5	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.86	Very limited Depth to water	 1.00
D33C:							
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.58	Very limited Depth to water	 1.00
Verndale, acid substratum	5	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.86	Very limited Depth to water	 1.00
Hubbard	5	Very limited Seepage Slope	 1.00 0.01	Somewhat limited Seepage	 0.58	Very limited Depth to water	 1.00
D34B:							
Urban land	75	Not rated		Not rated		Not rated	
Hubbard	20	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.86	Very limited Depth to water	 1.00
Mosford	5	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.79	Very limited Depth to water	 1.00
D35A:							
Elkriver, occasionally flooded	70	Very limited Seepage	 1.00	Very limited Depth to saturated zone Seepage	 1.00 0.91	Very limited Cutbanks cave	 1.00
Fordum, occasionally flooded	20	Very limited Seepage	 1.00	Very limited Depth to saturated zone Seepage	 1.00 0.86	Very limited Cutbanks cave	 1.00
Udipsamments	5	Not rated		Not rated		Not rated	
Winterfield, occasionally flooded	5	Very limited Seepage	 1.00	Very limited Depth to saturated zone Seepage	 1.00 0.86	Very limited Cutbanks cave	 1.00
D37F:							
Dorset, bedrock substratum	70	Very limited Seepage Slope	 1.00 0.50	Somewhat limited Seepage	 0.58	Very limited Depth to water	 1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
D37F:							
Rock outcrop	20	Not rated		Not rated		Not rated	
Hubbard, bedrock substratum	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.50				
D40A:							
Kratka, thick solum	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.31		
Duelm	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
				Seepage	0.66	Depth to water	0.06
Foldahl, MAP >25	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
				Seepage	0.10	Depth to water	0.06
D41C:							
Urban land	75	Not rated		Not rated		Not rated	
Waukon	20	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.69	Depth to water	1.00
Braham	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Slow refill	0.30
						Depth to water	0.06
D43A:							
Gonvick, terrace	85	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	0.58		
Braham	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Slow refill	0.30
						Depth to water	0.06
GP:							
Pits, gravel	80	Not rated		Not rated		Not rated	
Udipsamments	20	Not rated		Not rated		Not rated	
L2B:							
Malardi	65	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Hawick	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Rasset	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L2B:							
Eden Prairie	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L2C:							
Malardi	60	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Hawick	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Tomall	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Cutbanks cave	1.00
						Depth to water	0.81
Crowfork	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
L2D:							
Malardi	55	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.01				
Hawick	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
		Slope	0.03				
Tomall	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Cutbanks cave	1.00
						Depth to water	0.81
Crowfork	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
		Slope	0.01				
L2E:							
Malardi	55	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.32				
Hawick	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
		Slope	0.32				
Tomall	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Cutbanks cave	1.00
						Depth to water	0.81
L3A:							
Rasset	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Malardi	8	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Eden Prairie	2	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L3B:							
Rasset	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L3B:							
Malardi	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Eden Prairie	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L3C:							
Rasset	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Malardi	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Tomall	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Cutbanks cave	1.00
						Depth to water	0.81
Eden Prairie	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L4B:							
Crowfork	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
Eden Prairie	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L4C:							
Crowfork	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
Eden Prairie	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L4D:							
Crowfork	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
		Slope	0.03				
Eden Prairie	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L6A:							
Biscay	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.08		
Biscay, depressional	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.08		
Mayer	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.58		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L7A:							
Biscay, depressional	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.08		
Biscay	15	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.08		
Mayer	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.58		
L8A:							
Darfur	95	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.11		
Dassel	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.09		
L9A:							
Minnetonka	90	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.57	Depth to saturated zone	1.00	Slow refill	0.43
						Cutbanks cave	0.10
Depressional soil	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.57	Depth to saturated zone	1.00	Slow refill	0.43
						Cutbanks cave	0.10
				Ponding	1.00		
L10B:							
Kasota	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Eden Prairie	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Wet soil in swales	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	0.43		
				Seepage	0.08		
L11B:							
Grays	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.91	Depth to water	1.00
				Depth to saturated zone	0.86		
Kasota	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L11B:							
Crowfork	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
L12A:							
Muskego, frequently flooded	30	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Blue Earth, frequently flooded	30	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Content of organic matter	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Piping	1.00		
Houghton, frequently flooded	30	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Oshawa, frequently flooded	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.05	Ponding	1.00	Slow refill	0.30
				Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.92		
L13A:							
Klossner, drained	80	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Mineral soil, drained	15	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.49		
Houghton, drained	5	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
L14A:							
Houghton, drained	80	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Klossner, drained	10	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Mineral soil, drained	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.49		
L15A:							
Klossner, ponded	30	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L15A:							
Okoboji, ponded	30	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.05	Ponding	1.00	Slow refill	0.30
				Depth to saturated zone	1.00	Cutbanks cave	0.10
				Hard to pack	0.72		
Glencoe, ponded	30	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Ponding	1.00	Slow refill	0.30
				Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.15		
Houghton, ponded	10	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
L16A:							
Muskego, ponded	30	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Blue Earth, ponded	30	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Content of organic matter	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Ponding	1.00		
				Depth to saturated zone	1.00		
				Piping	1.00		
Houghton, ponded	30	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Klossner, ponded	10	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
L17B:							
Angus	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.29	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.30
						Cutbanks cave	0.10
Malardi	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Moon	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Slow refill	0.30
						Depth to water	0.06
Cordova	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.09		
L18A:							
Shields	85	Somewhat limited		Very limited		Very limited	
		Seepage	0.57	Depth to saturated zone	1.00	Depth to water	1.00
				Hard to pack	0.03		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L18A:							
Lerdal	10	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
Mazaska	5	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Piping	1.00 0.01	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
L19B:							
Moon	85	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone	0.86	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.30 0.06
Finchford	15	Very limited Seepage	1.00	Somewhat limited Seepage	0.86	Very limited Depth to water	1.00
L20B:							
Fedji, silty substratum	85	Very limited Seepage	1.00	Very limited Piping Depth to saturated zone Seepage	1.00 0.18 0.05	Very limited Cutbanks cave Depth to water Slow refill	1.00 0.44 0.43
Finchford	15	Very limited Seepage	1.00	Somewhat limited Seepage	0.86	Very limited Depth to water	1.00
L21A:							
Canisteo	80	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Piping	1.00 0.67	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
Cordova	15	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Piping	1.00 0.09	Somewhat limited Slow refill Cutbanks cave	0.28 0.10
Glencoe	5	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Ponding Piping	1.00 1.00 0.49	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
L22C2:							
Lester, eroded	70	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.31	Very limited Depth to water	1.00
Angus	15	Somewhat limited Seepage	0.72	Somewhat limited Piping Depth to saturated zone	0.29 0.05	Somewhat limited Depth to water Slow refill Cutbanks cave	0.60 0.30 0.10
Terril	12	Somewhat limited Seepage	0.72	Somewhat limited Piping Depth to saturated zone	0.46 0.05	Somewhat limited Depth to water Slow refill Cutbanks cave	0.60 0.28 0.10

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L22C2:							
Hamel	3	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.01		
L22D2:							
Lester, eroded	80	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
		Slope	0.03				
Terril	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.46	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Hamel	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.01		
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.43	Depth to water	1.00
L22E:							
Lester, morainic	75	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.30	Depth to water	1.00
		Slope	0.18				
Terril	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.44	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Hamel	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.02		
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.41	Depth to water	1.00
		Slope	0.02				
L22F:							
Lester, morainic	75	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.30	Depth to water	1.00
		Slope	0.50				
Terril	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.44	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Ridgeton	10	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.41	Depth to water	1.00
		Slope	0.12				
Hamel	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.02		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L23A:							
Cordova	85	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.09		
Glencoe	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.49		
Nessel	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	0.86	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.19	Depth to water	0.06
L24A:							
Glencoe, depressional	90	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.49		
Cordova	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.09		
L25A:							
Le Sueur	80	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.37		
Cordova	15	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.09		
Angus	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.29	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.30
						Cutbanks cave	0.10
L26A:							
Shorewood	85	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
Minnetonka	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.57	Depth to saturated zone	1.00	Slow refill	0.43
						Cutbanks cave	0.10
Good Thunder	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	0.87	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.20	Depth to water	0.06

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L26B:							
Shorewood	90	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
Good Thunder	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	0.87	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.20	Depth to water	0.06
Minnetonka	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.57	Depth to saturated zone	1.00	Slow refill	0.43
						Cutbanks cave	0.10
L26C2:							
Shorewood, eroded	95	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
Minnetonka	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.57	Depth to saturated zone	1.00	Slow refill	0.43
						Cutbanks cave	0.10
L27A:							
Suckercreek, frequently flooded	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
				Seepage	0.07		
Suckercreek, occasionally flooded	10	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.01		
Hanlon, occasionally flooded	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Depth to water	0.06
				Seepage	0.06		
L28A:							
Suckercreek, occasionally flooded	80	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.01		
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
				Seepage	0.07		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L28A:							
Hanlon, occasionally flooded	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
				Seepage	0.06	Depth to water	0.06
L29A:							
Hanlon, occasionally flooded	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
				Seepage	0.06	Depth to water	0.06
Suckercreek, occasionally flooded	10	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.01		
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
				Seepage	0.07		
L30A:							
Medo, surface drained	65	Very limited		Not rated		Very limited	
		Seepage	1.00			Cutbanks cave	1.00
Medo, drained	20	Very limited		Not rated		Very limited	
		Seepage	1.00			Cutbanks cave	1.00
Mineral soil, drained	15	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.09		
L31A:							
Medo, ponded	30	Very limited		Not rated		Very limited	
		Seepage	1.00			Cutbanks cave	1.00
Dassel, ponded	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.09		
Biscay, ponded	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.08		
Houghton, ponded	5	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L31A:							
Muskego, ponded	5	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
L32D:							
Hawick	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.08	Depth to water	1.00
		Slope	0.04				
Crowfork	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
		Slope	0.04				
Tomall	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Cutbanks cave	1.00
						Depth to water	0.81
L32F:							
Hawick	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.08	Depth to water	1.00
		Slope	0.41				
Crowfork	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
		Slope	0.41				
Tomall	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Cutbanks cave	1.00
						Depth to water	0.81
L35A:							
Lerdal	80	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Hard to pack	0.02		
Mazaska	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	0.01		
Cordova	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.09		
Le Sueur	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.37		
L36A:							
Hamel, overwash	50	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.01		
Hamel	43	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.01		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L36A:							
Terril	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.46	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Glencoe	2	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.49		
L37B:							
Angus, morainic	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.29	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.30
						Cutbanks cave	0.10
Angus, eroded	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.29	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.30
						Cutbanks cave	0.10
Le Sueur	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.37		
Cordova	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.09		
L38A:							
Rushriver, occasionally flooded	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.08		
Oshawa, frequently flooded	15	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.05	Ponding	1.00	Slow refill	0.30
				Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.92		
Minneiska, occasionally flooded	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Depth to water	0.06
				Seepage	0.01		
Algansee, occasionally flooded	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.22		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L39A:							
Minneiska, occasionally flooded	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
				Seepage	0.01	Depth to water	0.06
Rushriver, occasionally flooded	15	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.08		
Oshawa, frequently flooded	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.05	Ponding	1.00	Slow refill	0.30
				Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.92		
Algansee, occasionally flooded	5	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.22		
L40B:							
Angus	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.29	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.30
						Cutbanks cave	0.10
Kilkenny	40	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
Lerdal	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
Mazaska	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	0.01		
L41C2:							
Lester, eroded	45	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
Kilkenny, eroded	40	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.86	Depth to water	1.00
				Hard to pack	0.08		
Terril	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.46	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L41C2:							
Derrynane	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
L41D2:							
Lester, eroded	45	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
		Slope	0.03				
Kilkenny, eroded	35	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.86	Depth to water	1.00
		Slope	0.03				
				Hard to pack	0.08		
Terril	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.46	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Derrynane	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.43	Depth to water	1.00
L41E:							
Lester	45	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.30	Depth to water	1.00
		Slope	0.18				
Kilkenny	40	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.86	Depth to water	1.00
		Slope	0.18				
Terril	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.44	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Derrynane	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.41	Depth to water	1.00
		Slope	0.02				
L41F:							
Lester	45	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.30	Depth to water	1.00
		Slope	0.50				
Kilkenny	35	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.86	Depth to water	1.00
		Slope	0.50				

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L41F:							
Ridgeton	10	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.41	Depth to water	1.00
		Slope	0.12				
Terril	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.44	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Derrynane	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
L42B:							
Kingsley	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
Gotham	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Grays	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.70	Piping	0.91	Slow refill	0.30
				Depth to saturated zone	0.86	Cutbanks cave	0.10
						Depth to water	0.06
L42C:							
Kingsley	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
Gotham	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Grays	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.70	Piping	0.91	Slow refill	0.30
				Depth to saturated zone	0.86	Cutbanks cave	0.10
						Depth to water	0.06
L42D:							
Kingsley	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
		Slope	0.02				
Gotham	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.02				
Grays	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.70	Piping	0.91	Slow refill	0.30
				Depth to saturated zone	0.86	Cutbanks cave	0.10
						Depth to water	0.06
L42E:							
Kingsley	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.18	Seepage	0.04	Depth to water	1.00
		Seepage	0.05				
Gotham	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.18				

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L42E:							
Grays	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.70	Piping	0.91	Slow refill	0.30
				Depth to saturated zone	0.86	Cutbanks cave	0.10
						Depth to water	0.06
L42F:							
Kingsley	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Seepage	0.04	Depth to water	1.00
		Seepage	0.05				
Gotham	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.50				
Grays	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.70	Piping	0.91	Slow refill	0.30
				Depth to saturated zone	0.86	Cutbanks cave	0.10
						Depth to water	0.06
L43A:							
Brouillett, occasionally flooded	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
Minneiska, occasionally flooded	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Depth to water	0.06
				Seepage	0.01		
Rushriver, occasionally flooded	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.08		
L44A:							
Nessel	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	0.86	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.19	Depth to water	0.06
Cordova	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.09		
Angus	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.29	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.30
						Cutbanks cave	0.10

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L45A:							
Dundas	65	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	0.15		
Cordova	25	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.09		
Nessel	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	0.86	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.19	Depth to water	0.06
Glencoe	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.49		
L46A:							
Tomall	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Cutbanks cave	1.00
						Depth to water	0.81
Rasset	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Malardi	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L47A:							
Eden Prairie	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Malardi	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Rasset	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L47B:							
Eden Prairie	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Malardi	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Rasset	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L47C:							
Eden Prairie	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Malardi	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L47C:							
Rasset	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Hawick	10	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
L49A:							
Klossner, surface drained	65	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Klossner, drained	20	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Mineral soil, drained	15	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.49		
L50A:							
Houghton, surface drained	40	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Muskego, surface drained	40	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Content of organic matter	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Piping	1.00		
				Ponding	1.00		
Klossner, drained	10	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Mineral soil, drained	10	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.49		
L52C:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
Kingsley	5	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
L52E:							
Urban land	75	Not rated		Not rated		Not rated	
Lester	20	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.30	Depth to water	1.00
		Slope	0.12				

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L52E:							
Kingsley	5	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.12	Seepage	0.04	Depth to water	1.00
		Seepage	0.05				
L53B:							
Urban land	70	Not rated		Not rated		Not rated	
Moon	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Slow refill	0.30
						Depth to water	0.06
Lester	10	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
L54A:							
Urban land	70	Not rated		Not rated		Not rated	
Dundas	20	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	0.15		
Nessel	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	0.86	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.19	Depth to water	0.06
L55B:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Rasset	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Eden Prairie	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L55C:							
Urban land	70	Not rated		Not rated		Not rated	
Malardi	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Hawick	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.58	Depth to water	1.00
Crowfork	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
L56A:							
Muskego, frequently flooded	45	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
Klossner, frequently flooded	45	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L56A:							
Suckercreek, frequently flooded	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
				Seepage	0.07		
L58B:							
Koronis	60	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Kingsley	25	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
Forestcity	10	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		
Gotham	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L58C2:							
Koronis, eroded	55	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Kingsley, eroded	25	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
Forestcity	15	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		
Gotham	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
L58D2:							
Koronis, eroded	55	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.03				
Kingsley, eroded	25	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
		Slope	0.03				
Forestcity	15	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		
Gotham	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.03				
L58E:							
Koronis	55	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.18				

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L58E:							
Kingsley	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.18	Seepage	0.04	Depth to water	1.00
		Seepage	0.05				
Forestcity	15	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		
Gotham	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.18				
L59A:							
Forestcity	70	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		
Lundlake, depressional	25	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.84		
				Seepage	0.03		
Marcellon	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	1.00		
				Seepage	0.03		
L60B:							
Angus	65	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.29	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.30
						Cutbanks cave	0.10
Moon	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Slow refill	0.30
						Depth to water	0.06
Hamel	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.01		
L61C2:							
Lester, eroded	60	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
Metea, eroded	25	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Terril	12	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.46	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L61C2:							
Hamel	3	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.01		
L61D2:							
Lester, eroded	55	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
		Slope	0.03				
Metea, eroded	25	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.03				
Terril	12	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.46	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.43	Depth to water	1.00
Hamel	3	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.01		
L61E:							
Lester	55	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.30	Depth to water	1.00
		Slope	0.18				
Metea	25	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.18				
Terril	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.44	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Hamel	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.02		
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.41	Depth to water	1.00
		Slope	0.02				
L62B:							
Koronis	55	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Kingsley	20	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
Malardi	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L62B:							
Forestcity----------	5	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		
L62C2:							
Koronis, eroded-----	40	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Kingsley, eroded----	25	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
Malardi, eroded-----	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Forestcity----------	10	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		
L62D2:							
Koronis, eroded-----	40	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.02				
Kingsley, eroded----	25	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Seepage	0.04	Depth to water	1.00
		Slope	0.02				
Malardi, eroded-----	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.02				
Forestcity----------	10	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		
L62E:							
Koronis----------	40	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.24				
Kingsley----------	25	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.24	Seepage	0.04	Depth to water	1.00
		Seepage	0.05				
Malardi----------	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.24				
Forestcity----------	10	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L64A:							
Tadkee	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.79		
Tadkee, depressional	36	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.79		
Better drained soil	8	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.87	Cutbanks cave	1.00
						Slow refill	0.30
				Seepage	0.08	Depth to water	0.06
Granby	4	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Ponding	1.00		
				Seepage	0.07		
Less sandy soil	2	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	0.46		
L70C2:							
Lester, eroded	60	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
Malardi, eroded	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
Terril	12	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.46	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Hamel	3	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.01		
L70D2:							
Lester, eroded	55	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
		Slope	0.03				
Malardi, eroded	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.03				
Terril	12	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.46	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L70D2:							
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.43	Depth to water	1.00
Hamel	3	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.01		
L70E:							
Lester	55	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.30	Depth to water	1.00
		Slope	0.24				
Malardi	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.86	Depth to water	1.00
		Slope	0.32				
Terril	10	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.44	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Hamel	5	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.02		
Ridgeton	5	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.41	Depth to water	1.00
		Slope	0.02				
L71C:							
Metea	80	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Lester	15	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.31	Depth to water	1.00
Moon	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
						Slow refill	0.30
						Depth to water	0.06
L72A:							
Lundlake, depressional	90	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Ponding	1.00		
				Piping	0.84		
				Seepage	0.03		
Forestcity	10	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.03		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
L110E:							
Lester	50	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.30	Depth to water	1.00
		Slope	0.15				
Ridgeton	30	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.41	Depth to water	1.00
		Slope	0.06				
Cokato	10	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.35	Depth to water	1.00
		Slope	0.15				
Belview	6	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.42	Depth to water	1.00
		Slope	0.15				
Hamel	2	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.02		
Terril	2	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.44	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
L110F:							
Lester	55	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.34	Depth to water	1.00
		Slope	0.72				
Ridgeton	30	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.41	Depth to water	1.00
		Slope	0.15				
Cokato	8	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.35	Depth to water	1.00
		Slope	0.50				
Belview	4	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.72	Piping	0.42	Depth to water	1.00
		Seepage	0.70				
Terril	2	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.44	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
Hamel	1	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
						Cutbanks cave	0.10
				Piping	0.02		
L131A:							
Litchfield	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.07		

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L131A:							
Darfur	10	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.11		
Crowfork	5	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.91	Depth to water	1.00
L132A:							
Hamel	50	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
				Piping	0.01	Cutbanks cave	0.10
Glencoe, depressional	30	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
				Ponding	1.00	Cutbanks cave	0.10
				Piping	0.49		
Hamel, overwash	15	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
				Piping	0.01	Cutbanks cave	0.10
Terril	5	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.72	Piping	0.46	Depth to water	0.60
				Depth to saturated zone	0.05	Slow refill	0.28
						Cutbanks cave	0.10
M-W:							
Water, miscellaneous	100	Not rated		Not rated		Not rated	
U1A:							
Urban land	80	Not rated		Not rated		Not rated	
Udorthents, wet substratum	20	Not rated		Not rated		Not rated	
U2A:							
Udorthents, wet substratum	100	Not rated		Not rated		Not rated	
U3B:							
Udorthents (cut and fill land)	100	Not rated		Not rated		Not rated	
U4A:							
Urban land	70	Not rated		Not rated		Not rated	
Udipsamments (cut and fill land)	30	Not rated		Not rated		Not rated	
U5A:							
Urban land	65	Not rated		Not rated		Not rated	
Udorthents, wet substratum	35	Not rated		Not rated		Not rated	

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
U6B:							
Urban land	75	Not rated		Not rated		Not rated	
Udorthents (cut and fill land)	25	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Soil Properties

Data relating to soil properties are collected during the course of the soil survey. The data and the estimates of soil and water features, listed in tables, are explained on the following pages.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine grain-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties shown in the tables include the range of grain-size distribution and Atterberg limits, the engineering classification, and the physical and chemical properties of the major horizons of each soil. Pertinent soil and water features also are given.

Engineering Index Properties

Table 17 gives estimates of the engineering classification and of the range of index properties for the major horizons of each soil. Most soils have horizons of contrasting properties within the upper 5 or 6 feet.

Depth to the upper and lower boundaries of each horizon is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. “Loam,” for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is as much as 15 percent, an appropriate modifier is added, for example, “gravelly.” Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2001) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to grain-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, SP-SM.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3

inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of grain-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is omitted in the table.

Physical and Chemical Properties

Tables 18 and 19 show estimates of some characteristics and features that affect soil behavior. These estimates are given for the major horizons of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each horizon is indicated.

In table 18, *clay* as a soil separate, or component, consists of mineral soil particles that are less than 0.002 millimeter in diameter. The estimated clay content of each major soil horizon is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The amount and kind of clay greatly affect the fertility and physical condition of the soil. They determine the ability of the soil to adsorb cations and to retain moisture. They influence linear extensibility, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earth-moving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $^1/_3$-bar moisture tension. Weight is determined after drying the soil at 105 degrees C. In table 18, the estimated moist bulk density of each major soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. A bulk density of more than 1.6 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability refers to the ability of a soil to transmit water or air. The term “permeability,” as used in soil surveys, indicates saturated hydraulic conductivity (K_{sat}). The estimates in the table indicate the rate of water movement, in inches per hour, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each major soil horizon. The capacity varies, depending on soil properties that affect the retention of water and the depth of the root zone. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility percent is the linear expression of the volume difference of natural soil fabric at $^1/_3$-bar or $^1/_{10}$-bar water content and oven dryness. The volume change is reported as percent change for the whole soil. Volume change occurs mainly because of the interaction of clay minerals with water and varies with the amount and type of clay minerals in the soil. The size of the load on the soil and the magnitude of the change in soil moisture content influence the amount of swelling of soils in place. Laboratory measurements of swelling of undisturbed clods were made for many soils. For others, swelling was estimated on the basis of the kind and amount of clay minerals in the soil and on measurements of similar soils.

Linear extensibility of 3 percent or more can cause damage to buildings, roads, and other structures. Special design is often needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 18, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained or increased by returning crop residue to the soil. Organic matter affects the available water

capacity, infiltration rate, and tilth. It is a source of nitrogen and other nutrients for crops.

Erosion factors are shown in table 18 as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of several factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. Descriptions of these groups are available in the National Soil Survey Handbook (USDA, 2003).

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

In table 19, *cation-exchange capacity* is the total amount of extractable bases that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Soil reaction is a measure of acidity or alkalinity and is expressed as a range in pH values. The range in pH of each major horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

Gypsum is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

Water Features

Soil moisture status is an estimate of the fluctuating water content in a soil. It greatly influences vegetation type and plant growth; physical properties of soils, such as permeability, workability, strength, linear extensibility, and frost action; and chemical interactions and transport. Many other properties, qualities, and interpretations also are affected. Soil moisture status is important in the classification of soils, wetland, and habitat.

Table 20 gives estimates of soil moisture for each component of a map unit at various depths for every month of the year. The depths displayed are representative values that are indicative of conditions that occur most commonly. *Dry* indicates a moisture condition under which most plants (especially crops) cannot extract water for growth. *Moist* indicates a moisture condition under which soil water is most readily available for plant growth. *Wet* indicates a condition under which water will stand in an unlined hole or at least a condition under which the soil is too wet for the growth of most agricultural species. A moisture status of 4.0-6.7 (wet) indicates that most of the time the component is saturated at some depth between 4.0 feet and 6.7 feet during the month designated. In some years the soil may be saturated at a depth of less than 4.0 feet or more than 6.7 feet; however, field observations indicate that the soil will be saturated between these depths in most years. In the summer, the soil may show the effects of drying plus intermittent rains that result in a moist or wet layer over a dry layer that gets moist or wet again.

In table 20, *hydrologic soil groups* are groups of

soils that, when saturated, have the same runoff potential under similar storm and ground cover conditions. The soil properties that affect the runoff potential are those that influence the minimum rate of infiltration in a bare soil after prolonged wetting and when the soil is not frozen. These properties include the depth to a zone in which the soil moisture status is wet, the infiltration rate, permeability after prolonged wetting, and the depth to a very slowly permeable horizon or horizons. The influences of ground cover and slope are treated independently and are not taken into account in hydrologic soil groups.

In the definitions of the hydrologic soil groups, the infiltration rate is the rate at which water enters the soil at the surface and is controlled by surface conditions. The transmission rate is the rate at which water moves through the soil and is controlled by properties of the soil horizons.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist chiefly of very deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have a moderately fine to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a horizon or horizons that impede the downward movement of water or soils that have a moderately fine or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clayey soils that have a high linear extensibility; soils that have a zone, high in the profile, in which the soil moisture status is wet on a permanent basis; soils that have a claypan or clay horizon or horizons at or near the surface; and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Flooding, the temporary covering of the soil surface by flowing water, is caused by overflow from streams or by runoff from adjacent slopes. Shallow water standing or flowing for short periods after rainfall or snowmelt is not considered flooding. Standing water in marshes and swamps or in closed depressions is considered to be ponding.

Table 21 gives estimates of the frequency and duration of flooding for every month of the year. Flooding frequency is the annual probability of a flood event expressed as a class. *None* indicates no reasonable possibility of flooding (the chance of flooding is nearly 0 percent in any year, or flooding is likely less than once in 500 years). *Very rare* indicates that flooding is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year, or flooding is likely less than once in 100 years but more than once in 500 years). *Rare* indicates that flooding is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year, or flooding is likely 1 to 5 times in 100 years). *Occasional* indicates that flooding occurs infrequently under usual weather conditions (the chance of flooding is 5 to 50 percent in any year, or flooding is likely 5 to 50 times in 100 years). *Frequent* indicates that flooding is likely to occur often under usual weather conditions (the chance of flooding is more than 50 percent in any year, or flooding is likely more than 50 times in 100 years; but the chance of flooding is less than 50 percent in all months in any year). *Very frequent* indicates that flooding is likely to occur very often under usual weather conditions (the chance of flooding is more than 50 percent in all months of any year).

Flooding duration is the average duration of inundation per flood occurrence expressed as a class. *Extremely brief* is 0.1 hour to 4.0 hours; *very brief* is 4 to 48 hours; *brief* is 2 to 7 days; *long* is 7 to 30 days; and *very long* is more than 30 days. About two-thirds to three-fourths of all flooding occurs during the stated period.

The information on flooding is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and level of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation.

Table 22 gives estimates of the frequency,

duration, and depth of ponding for every month of the year. The depths displayed are representative values that are indicative of conditions that occur most commonly.

Ponding frequency is the number of times ponding occurs over a period of time. *None* indicates no reasonable possibility of ponding (the chance of ponding is nearly 0 percent in any year). *Rare* indicates that ponding is unlikely but possible under unusual weather conditions (the chance of ponding ranges from nearly 0 percent to 5 percent in any year, or ponding is likely 0 to 5 times in 100 years). *Occasional* indicates that ponding is expected infrequently under usual weather conditions (the chance of ponding ranges from 5 to 50 percent in any one year, or ponding is likely 5 to 50 times in 100 years). *Frequent* indicates that ponding is likely to occur under usual weather conditions (the chance of ponding is more than 50 percent in any year, or ponding is likely more than 50 times in 100 years).

Ponding duration is the average length of time of the ponding occurrence. It is expressed as *very brief* (less than 2 days), *brief* (2 to 7 days), *long* (7 to 30 days), and *very long* (more than 30 days).

Soil Features

Table 23 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to a zone in which the soil moisture status is wet are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a saturated zone high in the profile during the winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate,* or *high,* is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Table 17.--Engineering Index Properties

(Absence of an entry indicates that the data were not estimated)

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D1B:													
Anoka, terrace--	55	0-10	Loamy fine sand	SM	A-2	0	0	100	100	85-100	20-35	0-20	NP-4
		10-60	Very fine sand, fine sand	SP-SM, SM, SP	A-2	0	0	100	95-100	90-100	4-35	0-20	NP-4
Zimmerman, terrace--------	40	0-9	Fine sand	SM, SP-SM	A-2	0	0	100	95-100	95-100	10-20	0-20	NP-4
		9-60	Fine sand, loamy fine sand	SM, SP-SM, SP	A-2, A-3	0	0	100	95-100	70-100	4-20	0-20	NP-4
Kost----------	5	0-14	Loamy fine sand	SM	A-2, A-4	0	0	100	100	85-100	15-50	0-20	NP-4
		14-33	Fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	100	75-100	5-35	0-20	NP-4
		33-60	Fine sand, sand	SP-SM, SP, SM	A-2, A-3	0	0	90-100	90-100	75-100	2-30	0-20	NP-4
D1C:													
Anoka, terrace--	45	0-10	Loamy fine sand	SM	A-2	0	0	100	100	85-100	20-35	0-20	NP-4
		10-60	Very fine sand, fine sand	SP-SM, SM, SP	A-2	0	0	100	95-100	90-100	4-35	0-20	NP-4
Zimmerman, terrace--------	45	0-9	Fine sand	SM, SP-SM	A-2	0	0	100	95-100	95-100	10-20	0-20	NP-4
		9-60	Fine sand, loamy fine sand	SM, SP-SM, SP	A-3, A-2	0	0	100	95-100	70-100	4-20	0-20	NP-4
Kost----------	10	0-14	Loamy fine sand	SM	A-2, A-4	0	0	100	100	85-100	15-50	0-20	NP-4
		14-33	Fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	100	75-100	5-35	0-20	NP-4
		33-60	Fine sand, sand	SM, SP-SM, SP	A-2, A-3	0	0	90-100	90-100	75-100	2-30	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D2A:													
Elkriver, rarely flooded--------	85	0-10	Fine sandy loam	ML, SM	A-4	0	0	100	85-100	50-95	30-65	0-25	NP-4
		10-35	Fine sandy loam, very fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		35-39	Very fine sandy loam, fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		39-80	Fine sand, sand, gravelly sand	SM, SP-SM, SP	A-1-b, A-2-4, A-3	0	0	95-100	65-100	40-75	4-15	0-20	NP-4
Mosford, rarely flooded--------	10	0-11	Fine sandy loam	SM	A-2, A-4	0	0	100	85-100	55-85	15-55	0-25	NP-6
		11-16	Fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	85-100	55-85	15-55	0-25	NP-6
		16-57	Sand, fine sand, loamy fine sand	SM, SP-SM	A-1, A-2, A-3	0	0	100	85-100	45-85	5-35	0-20	NP-4
		57-80	Sand, coarse sand, gravelly sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	95-100	50-100	25-70	0-15	0-20	NP-4
Elkriver, occasionally flooded--------	5	0-10	Fine sandy loam	ML, SM	A-4	0	0	100	85-100	50-95	30-65	0-25	NP-4
		10-26	Fine sandy loam, very fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		26-32	Very fine sandy loam, fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		32-80	Loamy fine sand, sand, gravelly sand	SM, SP-SM, SP	A-1-b, A-2-4, A-3	0	0	95-100	65-100	35-70	4-15	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D3A:													
Elkriver, occasionally flooded--------	80	0-10	Fine sandy loam	ML, SM	A-4	0	0	100	85-100	50-95	30-65	0-25	NP-4
		10-26	Fine sandy loam, very fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		26-32	Very fine sandy loam, fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		32-80	Loamy fine sand, sand, gravelly sand	SP, SM, SP-SM	A-1-b, A-2-4, A-3	0	0	95-100	65-100	35-70	4-15	0-20	NP-4
Fordum, frequently flooded--------	15	0-7	Fine sandy loam	SC-SM, CL-ML, SM	A-1, A-2, A-4	0	0-5	80-100	75-100	45-95	20-65	0-30	NP-7
		7-28	Silt loam, sandy loam, gravelly loam	ML, SM	A-1, A-2, A-4	0	0-5	30-100	25-100	20-100	10-90	0-20	NP-4
		28-80	Sand, very gravelly loamy fine sand	GP, SM, SP	A-1, A-2, A-3	0	0-5	30-100	25-100	7-95	1-50	0-20	NP-4
Winterfield, occasionally flooded--------	5	0-8	Loamy fine sand	SC-SM, SM	A-2-4, A-4	0	0	100	95-100	50-90	15-45	0-25	NP-7
		8-20	Sand, coarse sand, loamy sand, loamy fine sand	SC-SM, SM, SP, SP-SM	A-2-4, A-3, A-4	0	0	100	95-100	50-90	2-45	0-25	NP-7
		20-80	Sand, gravelly sand, loamy fine sand	SM, SP, SP-SM	A-1-b, A-2-4, A-3	0	0	85-100	70-100	35-80	0-35	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D4A:													
Dorset----------	90	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		12-20	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		20-27	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-2, A-1	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		27-60	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Verndale, acid substratum-----	8	0-10	Sandy loam	SM	A-4, A-2	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SP, SW	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4
Almora----------	2	0-10	Loam	CL-ML, SC-SM, SC	A-4	0	0	95-100	85-100	45-85	45-75	23-30	6-11
		10-14	Sandy loam, fine sandy loam, loam	CL-ML, SC-SM, SC	A-4	0	0	95-100	85-100	45-85	35-65	23-30	6-11
		14-36	Sandy clay loam, gravelly sandy clay loam, loam	CL, SC	A-4, A-6	0	0-5	95-100	60-98	40-80	40-75	34-39	9-18
		36-41	Gravelly loamy coarse sand, sand, loamy sand	SM, SC-SM, SP-SM	A-1, A-3	0	0-5	55-90	45-85	25-70	5-30	0-20	NP-6
		41-80	Gravelly coarse sand, sand, coarse sand	SP, SP-SM, SW	A-1	0	0-5	55-85	45-80	15-65	0-20	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D4B:													
Dorset----------	85	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		12-20	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		20-27	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		27-60	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Verndale, acid substratum-----	10	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SP, SW	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4
Almora----------	5	0-10	Loam	CL-ML, SC-SM, SC	A-4	0	0	95-100	85-100	45-85	45-75	23-30	6-11
		10-14	Sandy loam, fine sandy loam, loam	CL-ML, SC-SM, SC	A-4	0	0	95-100	85-100	45-85	35-65	23-30	6-11
		14-36	Sandy clay loam, gravelly sandy clay loam, loam	CL, SC	A-4, A-6	0	0-5	95-100	60-98	40-80	40-75	34-39	9-18
		36-41	Gravelly loamy coarse sand, sand, loamy sand	SC-SM, SP-SM, SM	A-1, A-3	0	0-5	55-90	45-85	25-70	5-30	0-20	NP-6
		41-80	Gravelly coarse sand, sand, coarse sand	SP, SP-SM, SW	A-1	0	0-5	55-85	45-80	15-65	0-20	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D4C:													
Dorset----------	75	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		11-19	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		19-32	Gravelly loamy sand, gravelly coarse sand, coarse sand	SM, GM, SC-SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		32-80	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Verndale, acid substratum-----	15	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SP, SW	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4
Almora----------	10	0-10	Loam	CL-ML, SC-SM, SC	A-4	0	0	95-100	85-100	45-85	45-75	23-30	6-11
		10-14	Sandy loam, fine sandy loam, loam	CL-ML, SC-SM, SC	A-4	0	0	95-100	85-100	45-85	35-65	23-30	6-11
		14-36	Sandy clay loam, gravelly sandy clay loam, loam	CL, SC	A-4, A-6	0	0-5	95-100	60-98	40-80	40-75	34-39	9-18
		36-41	Gravelly loamy coarse sand, sand, loamy sand	SC-SM, SP-SM, SM	A-1, A-3	0	0-5	55-90	45-85	25-70	5-30	0-20	NP-6
		41-80	Gravelly coarse sand, sand, coarse sand	SP, SP-SM, SW	A-1	0	0-5	55-85	45-80	15-65	0-20	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D5B:													
Dorset----------	65	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		11-19	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		19-32	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		32-80	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Two Inlets------	25	0-9	Loamy sand	SM	A-2-4	0	0-1	90-100	80-100	35-75	15-30	0-20	NP-4
		9-19	Gravelly loamy sand, loamy coarse sand, loamy sand	SM, SP-SM	A-2, A-2-4, A-3	0	0-5	80-100	50-90	30-65	5-30	0-25	NP-7
		19-80	Gravelly coarse sand, gravelly sand, sand	SP-SM, SP, SW	A-3, A-1	0	0-5	50-95	50-75	30-55	2-10	0-20	NP-4
Verndale, acid substratum-----	5	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SP, SW	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4
Southhaven------	5	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
		48-62	Sandy clay loam, loam, sandy loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
		62-66	Loamy coarse sand, loamy sand	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
		66-80	Sand, coarse sand, gravelly sand	SW, SP	A-1-b	0	0	85-100	50-100	5-30	2-12	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D5C:													
Dorset----------	55	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		11-19	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		19-32	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		32-80	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Two Inlets------	30	0-9	Loamy sand	SM	A-2-4	0	0-1	90-100	80-100	35-75	15-30	0-20	NP-4
		9-19	Gravelly loamy sand, loamy coarse sand, loamy sand	SM, SP-SM	A-2, A-2-4, A-3	0	0-5	80-100	50-90	30-65	5-30	0-25	NP-7
		19-80	Gravelly coarse sand, gravelly sand, sand	SP-SM, SP, SW	A-3, A-1	0	0-5	50-95	50-75	30-55	2-10	0-20	NP-4
Southhaven------	10	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
		48-62	Sandy clay loam, loam, sandy loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
		62-66	Loamy coarse sand, loamy sand	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
		66-80	Sand, coarse sand, gravelly sand	SW, SP	A-1-b	0	0	85-100	50-100	5-30	2-12	0-15	NP
Verndale, acid substratum-----	5	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SP, SW	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D5D:													
Dorset----------	50	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		14-25	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		25-80	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Two Inlets------	35	0-9	Loamy sand	SM	A-2-4	0	0-1	90-100	80-100	35-75	15-30	0-20	NP-4
		9-19	Gravelly loamy sand, loamy coarse sand, loamy sand	SM, SP-SM	A-2, A-2-4, A-3	0	0-5	80-100	50-90	30-65	5-30	0-25	NP-7
		19-80	Gravelly coarse sand, gravelly sand, sand	SP-SM, SP, SW	A-3, A-1	0	0-5	50-95	50-75	30-55	2-10	0-20	NP-4
Southhaven------	10	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
		48-62	Sandy clay loam, loam, sandy loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
		62-66	Loamy coarse sand, loamy sand	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
		66-80	Sand, coarse sand	SW, SP	A-1-b	0	0	85-100	45-100	5-30	2-12	0-15	NP
Verndale, acid substratum-----	5	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SP, SW	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D6A:													
Verndale, acid substratum-----	90	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SW, SP	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4
Dorset----------	7	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		12-20	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		20-27	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		27-60	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Hubbard---------	3	0-20	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		20-32	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		32-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
D6B:													
Verndale, acid substratum-----	85	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SP, SW	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D6B:													
Dorset----------	10	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		12-20	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		20-27	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		27-60	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Hubbard---------	5	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		23-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
D6C:													
Verndale, acid substratum-----	80	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SP, SW	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4
Dorset----------	15	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		11-19	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		19-32	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		32-80	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D6C:													
Hubbard---------	5	0-12	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		12-33	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	4-12	0-20	NP-4
		33-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
D7A:													
Hubbard---------	95	0-20	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		20-32	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		32-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
Mosford---------	5	0-13	Sandy loam	SM	A-2-4, A-4	0	0	100	85-100	50-85	25-55	0-25	NP-6
		13-16	Sandy loam, coarse sandy loam, fine sandy loam	SM	A-4, A-2-4	0	0	100	85-100	55-85	25-55	0-25	NP-6
		16-35	Coarse sand, sand, loamy sand	SP, SP-SM	A-2-4, A-3	0	0	100	85-100	45-65	4-30	0-20	NP-4
		35-80	Coarse sand, sand, gravelly coarse sand	SP, SP-SM, SW	A-1, A-3	0	0	95-100	50-100	45-75	4-15	0-20	NP-4
D7B:													
Hubbard---------	90	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		23-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D7B:													
Mosford---------	10	0-13	Sandy loam	SM	A-2-4, A-4	0	0	100	85-100	50-85	25-55	0-25	NP-6
		13-16	Sandy loam, coarse sandy loam, fine sandy loam	SM	A-2-4, A-4	0	0	100	85-100	55-85	25-55	0-25	NP-6
		16-35	Coarse sand, sand, loamy sand	SP, SP-SM	A-2-4, A-3	0	0	100	85-100	45-65	4-30	0-20	NP-4
		35-80	Coarse sand, sand, gravelly coarse sand	SP, SP-SM, SW	A-1, A-3	0	0	95-100	50-100	45-75	4-15	0-20	NP-4
D7C:													
Hubbard---------	80	0-12	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		12-33	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		33-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
Sandberg--------	10	0-14	Loamy coarse sand	SP-SM, SM	A-1, A-2	0	0-1	85-100	80-95	40-75	10-25	0-20	NP-4
		14-32	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SP-SM, SP	A-2, A-3, A-1	0-3	0-5	75-95	50-95	35-70	4-25	0-20	NP-4
		32-80	Gravelly coarse sand, coarse sand, sand	SP-SM, SP, SW	A-1, A-2, A-3	0-3	0-5	60-95	50-90	30-65	2-10	0-15	NP
Mosford---------	10	0-13	Sandy loam	SM	A-2-4, A-4	0	0	100	85-100	50-85	25-55	0-25	NP-6
		13-16	Sandy loam, coarse sandy loam, fine sandy loam	SM	A-2-4, A-4	0	0	100	85-100	55-85	25-55	0-25	NP-6
		16-35	Coarse sand, sand, loamy sand	SP-SM, SP	A-2-4, A-3	0	0	100	85-100	45-65	4-30	0-20	NP-4
		35-80	Coarse sand, sand, gravelly coarse sand	SP, SP-SM, SW	A-1, A-3	0	0	95-100	50-100	45-75	4-15	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D8B:													
Sandberg--------	95	0-14	Loamy coarse sand	SP-SM, SM	A-1, A-2	0	0-1	85-100	80-95	40-75	10-25	0-20	NP-4
		14-32	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SP-SM, SP	A-2, A-3, A-1	0-3	0-5	75-95	50-95	35-70	4-25	0-20	NP-4
		32-80	Gravelly coarse sand, coarse sand, sand	SP-SM, SP, SW	A-1, A-2, A-3	0-3	0-5	60-95	50-90	30-65	2-10	0-15	NP
Arvilla, MAP >25	5	0-14	Coarse sandy loam	SC, SC-SM, SM	A-2, A-4, A-6	0	0	95-100	90-100	50-80	20-45	15-30	3-15
		14-17	Sandy loam, loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4, A-6	0	0	90-100	85-100	50-80	20-45	15-35	3-15
		17-80	Gravelly coarse sand, coarse sand, very gravelly coarse sand	GP, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0	35-100	25-100	10-60	0-15	0-20	NP-4
D8C:													
Sandberg--------	80	0-14	Loamy coarse sand	SP-SM, SM	A-1, A-2	0	0-1	85-100	80-95	40-75	10-25	0-20	NP-4
		14-32	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SP-SM, SP	A-2, A-3, A-1	0-3	0-5	75-95	50-95	35-70	4-25	0-20	NP-4
		32-80	Gravelly coarse sand, coarse sand, sand	SP-SM, SP, SW	A-1, A-2, A-3	0-3	0-5	60-95	50-90	30-65	2-10	0-15	NP
Corliss---------	15	0-7	Loamy sand	SM, SP-SM	A-1-b, A-2-4	0	0-5	85-100	80-100	40-70	10-25	0-20	NP-4
		7-28	Loamy sand, gravelly sand, coarse sand	SM, SP, SP-SM	A-1-b, A-2-4, A-3	0	0-5	75-95	50-85	35-70	2-25	0-20	NP-4
		28-80	Coarse sand, sand, gravelly coarse sand	SP, SP-SM, SW	A-1-b, A-3	0	0-5	60-95	50-85	30-65	2-10	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D8C:													
Southhaven------	5	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
		48-62	Sandy clay loam, loam, sandy loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
		62-66	Loamy coarse sand, loamy sand	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
		66-80	Sand, coarse sand, gravelly sand	SW, SP	A-1-b	0	0	85-100	50-100	5-30	2-12	0-15	NP
D8D:													
Sandberg--------	80	0-11	Loamy coarse sand	SP-SM, SM	A-1, A-2	0	0-1	85-100	80-95	40-75	10-25	0-20	NP-4
		11-27	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand, coarse sand	SP-SM, SP	A-2, A-1, A-3	0-3	0-5	75-95	50-95	35-70	4-25	0-20	NP-4
		27-80	Gravelly coarse sand, coarse sand, sand	SP-SM, SP, SW	A-1, A-2, A-3	0-3	0-5	60-95	50-90	30-65	2-10	0-15	NP
Corliss---------	10	0-7	Loamy sand	SM, SP-SM	A-1-b, A-2-4	0	0-5	85-100	80-100	40-70	10-25	0-20	NP-4
		7-28	Loamy sand, gravelly sand, coarse sand	SM, SP, SP-SM	A-1-b, A-2-4, A-3	0	0-5	75-95	50-85	35-70	2-25	0-20	NP-4
		28-80	Coarse sand, sand, gravelly coarse sand	SP, SP-SM, SW	A-1-b, A-3	0	0-5	60-95	50-85	30-65	2-10	0-15	NP
Southhaven------	10	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
		48-62	Sandy clay loam, loam, sandy loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
		62-66	Loamy coarse sand, loamy sand	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
		66-80	Sand, coarse sand, gravelly sand	SW, SP	A-1-b	0	0	85-100	50-100	5-30	2-12	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D8E:													
Sandberg--------	80	0-11	Loamy coarse sand	SP-SM, SM	A-1, A-2	0	0-1	85-100	80-95	40-75	10-25	0-20	NP-4
		11-27	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand, coarse sand	SP-SM, SP	A-2, A-3, A-1	0-3	0-5	75-95	50-95	35-70	4-25	0-20	NP-4
		27-80	Gravelly coarse sand, coarse sand, sand	SP-SM, SP, SW	A-1, A-2, A-3	0-3	0-5	60-95	50-90	30-65	2-10	0-15	NP
Corliss---------	10	0-7	Loamy sand	SM, SP-SM	A-1-b, A-2-4	0	0-5	85-100	80-100	40-70	10-25	0-20	NP-4
		7-28	Loamy sand, gravelly sand, coarse sand	SP, SP-SM, SM	A-1-b, A-2-4, A-3	0	0-5	75-95	50-85	35-70	2-25	0-20	NP-4
		28-80	Coarse sand, sand, gravelly coarse sand	SP, SP-SM, SW	A-1-b, A-3	0	0-5	60-95	50-85	30-65	2-10	0-15	NP
Southhaven------	10	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
		48-62	Sandy clay loam, loam, sandy loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
		62-66	Loamy coarse sand, loamy sand	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
		66-80	Sand, coarse sand, gravelly sand	SW, SP	A-1-b	0	0	85-100	50-100	5-30	2-12	0-15	NP
D10A:													
Forada----------	95	0-10	Sandy loam	SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-5
		10-33	Fine sandy loam, loam, loamy fine sand	SM	A-4	0	0	100	100	70-100	35-50	20-35	NP-7
		33-60	Sand, coarse sand	SM, SP	A-2, A-3, A-1	0	0	85-100	85-100	35-70	2-15	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D10A:													
Depressional soil----------	5	0-19	Sandy loam	SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-5
		19-38	Fine sandy loam, loam, loamy fine sand	SM	A-4	0	0	100	100	70-100	35-50	20-35	NP-7
		38-60	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
D11A:													
Lindaas---------	80	0-16	Silt loam	CL	A-6	0	0	100	100	95-100	85-95	40-45	20-25
		16-32	Clay, silty clay	CH, CL	A-7	0	0	100	100	95-100	85-95	45-75	30-50
		32-80	Silt loam, silty clay loam	CL	A-6	0	0	100	100	95-100	85-95	40-55	20-35
Lindaas, sandy substratum-----	10	0-14	Silt loam	CL	A-6	0	0	100	100	95-100	85-95	40-45	20-25
		14-20	Clay, silty clay	CH, CL	A-7	0	0	100	100	95-100	85-95	45-75	30-50
		20-62	Silt loam, silty clay loam	CL	A-6	0	0	100	100	95-100	85-95	40-55	20-35
		62-80	Stratified very gravelly coarse sand to loamy sand	GP, SP, SP-SM, GP-GM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
Depressional soil----------	10	0-23	Silt loam	CL	A-6	0	0	100	100	95-100	85-95	40-45	20-25
		23-30	Clay, silty clay	CH, CL	A-7	0	0	100	100	95-100	85-95	45-75	30-50
		30-80	Silt loam, silty clay loam	CL, CH	A-6, A-7	0	0	100	100	95-100	85-95	40-55	20-35

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D12B:													
Bygland, MAP >25	70	0-9	Silt loam	ML, CL	A-4, A-6	0	0	100	100	95-100	80-95	30-35	7-15
		9-23	Silty clay, clay, silty clay loam	CH, CL	A-7	0	0	100	100	95-100	85-100	45-70	20-45
		23-27	Silty clay loam, silt loam, silty clay	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
		27-80	Stratified silt loam to silty clay loam	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
Bygland, sandy substratum-----	15	0-14	Silt loam	ML, CL	A-4, A-6	0	0	100	100	95-100	80-95	30-35	7-15
		14-26	Silty clay, clay, silty clay loam	CH, CL	A-7	0	0	100	100	95-100	85-100	45-70	20-45
		26-38	Silty clay loam, silt loam, silty clay	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
		38-63	Stratified silt loam to silty clay loam	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
		63-80	Stratified very gravelly coarse sand to loamy sand	GP, SP, SP-SM, GP-GM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
Lindaas---------	10	0-16	Silt loam	CL	A-6	0	0	100	100	95-100	85-95	40-45	20-25
		16-32	Clay, silty clay	CH, CL	A-7	0	0	100	100	95-100	85-95	45-75	30-50
		32-80	Silt loam, silty clay loam	CL	A-6	0	0	100	100	95-100	85-95	40-55	20-35
Depressional soil----------	5	0-23	Silt loam	CL	A-6	0	0	100	100	95-100	85-95	40-45	20-25
		23-30	Clay, silty clay	CH, CL	A-7	0	0	100	100	95-100	85-95	45-75	30-50
		30-80	Silt loam, silty clay loam	CL, CH	A-6, A-7	0	0	100	100	95-100	85-95	40-55	20-35

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D12C2:													
Bygland, MAP >25	70	0-7	Silt loam	ML, CL	A-4, A-6	0	0	100	100	95-100	80-95	30-35	7-15
		7-20	Silty clay, clay, silty clay loam	CH, CL	A-7	0	0	100	100	95-100	85-100	45-70	20-45
		20-26	Silty clay loam, silt loam, silty clay	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
		26-80	Stratified silt loam to silty clay loam	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
Bygland, sandy substratum-----	15	0-14	Silt loam	ML, CL	A-4, A-6	0	0	100	100	95-100	80-95	30-35	7-15
		14-26	Silty clay, clay, silty clay loam	CH, CL	A-7	0	0	100	100	95-100	85-100	45-70	20-45
		26-38	Silty clay loam, silt loam, silty clay	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
		38-63	Stratified silt loam to silty clay loam	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
		63-80	Stratified very gravelly coarse sand to loamy sand	GP, SP, SP-SM, GP-GM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
Lindaas---------	10	0-16	Silt loam	CL	A-6	0	0	100	100	95-100	85-95	40-45	20-25
		16-32	Clay, silty clay	CH, CL	A-7	0	0	100	100	95-100	85-95	45-75	30-50
		32-80	Silt loam, silty clay loam	CL	A-6	0	0	100	100	95-100	85-95	40-55	20-35
Depressional soil----------	5	0-23	Silt loam	CL	A-6	0	0	100	100	95-100	85-95	40-45	20-25
		23-30	Clay, silty clay	CH, CL	A-7	0	0	100	100	95-100	85-95	45-75	30-50
		30-80	Silt loam, silty clay loam	CL, CH	A-6, A-7	0	0	100	100	95-100	85-95	40-55	20-35

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D13A:													
Langola, terrace	85	0-15	Loamy fine sand	SM	A-2	0	0	100	100	55-70	15-30	0-20	NP-4
		15-31	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	100	65-85	10-20	0-20	NP-4
		31-39	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-4	0-2	0-3	85-95	70-90	55-75	40-50	15-22	3-9
		39-43	Sandy loam, fine sandy loam, gravelly sandy loam	SM, SC-SM	A-2, A-4	0-2	0-3	85-95	70-90	50-70	25-50	15-22	NP-6
		43-60	Sandy loam, fine sandy loam, gravelly sandy loam	SM, SC-SM	A-2, A-4	0-2	0-3	85-95	70-90	50-70	25-50	15-22	NP-6
Duelm----------	10	0-16	Loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	35-75	10-25	15-20	NP-4
		16-30	Loamy sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	15-20	NP-4
		30-80	Coarse sand, sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-75	3-15	0-20	NP-4
Hubbard---------	5	0-20	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		20-32	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		32-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D13B:													
Langola, terrace	85	0-15	Loamy fine sand	SM	A-2	0	0	100	100	55-70	15-30	0-20	NP-4
		15-31	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	100	65-85	10-20	0-20	NP-4
		31-39	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-4	0-2	0-3	85-95	70-90	55-75	40-50	15-22	3-9
		39-43	Sandy loam, fine sandy loam, gravelly sandy loam	SM, SC-SM	A-2, A-4	0-2	0-3	85-95	70-90	50-70	25-50	15-22	NP-6
		43-60	Sandy loam, fine sandy loam, gravelly sandy loam	SM, SC-SM	A-2, A-4	0-2	0-3	85-95	70-90	50-70	25-50	15-22	NP-6
Hubbard---------	10	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		23-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
Duelm----------	5	0-16	Loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	35-75	10-25	15-20	NP-4
		16-30	Loamy sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	15-20	NP-4
		30-80	Coarse sand, sand	SM, SP, SP-SM	A-3, A-1, A-2	0	0	85-100	75-100	35-75	3-15	0-20	NP-4
D15A:													
Seelyeville, drained--------	65	0-10	Muck	PT	A-8	0	0	---	---	---	---	---	---
		10-60	Muck, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
Markey, drained	25	0-28	Muck	PT	A-8	---	---	---	---	---	---	---	---
		28-32	Fine sand, loamy sand, coarse sand	SM, SP, SP-SM	A-2, A-3	0	0	100	75-100	60-75	0-20	0-20	NP-4
		32-80	Fine sand, sand, coarse sand	SM, SP, SP-SM	A-2, A-3	0	0	100	75-100	60-75	0-20	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D15A:													
Mineral soil, drained--------	10	0-18	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		18-29	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		29-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
D16A:													
Seelyeville, ponded---------	45	0-15	Muck	PT	A-8	0	0	---	---	---	---	---	---
		15-80	Muck, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
Markey, ponded--	45	0-27	Muck	PT	A-8	---	---	---	---	---	---	---	---
		27-32	Fine sand, loamy sand, coarse sand	SM, SP, SP-SM	A-2, A-3	0	0	100	75-100	60-75	0-20	0-20	NP-4
		32-80	Fine sand, sand, coarse sand	SM, SP, SP-SM	A-2, A-3	0	0	100	75-100	60-75	0-20	0-20	NP-4
Mineral soil, ponded---------	10	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		34-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
D17A:													
Duelm-----------	90	0-16	Loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	35-75	10-25	15-20	NP-4
		16-30	Loamy sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	15-20	NP-4
		30-80	Coarse sand, sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-75	3-15	0-20	NP-4
Isan----------	8	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		34-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D17A:													
Hubbard---------	2	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse sand, loamy sand	SP-SM	A-2-4, A-3, A-1	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		23-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
D18B:													
Braham, terrace	85	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-42	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		42-60	Sandy clay loam, loam, clay loam	SC, CL, ML	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
Duelm----------	15	0-16	Loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	35-75	10-25	15-20	NP-4
		16-30	Loamy sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	15-20	NP-4
		30-80	Coarse sand, sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-75	3-15	0-20	NP-4
D19A:													
Fordum, frequently flooded--------	65	0-7	Fine sandy loam	SC-SM, CL-ML, SM	A-1, A-2, A-4	0	0-5	80-100	75-100	45-95	20-65	0-30	NP-7
		7-28	Silt loam, sandy loam, gravelly loam	ML, SM	A-1, A-2, A-4	0	0-5	30-100	25-100	20-100	10-90	0-20	NP-4
		28-80	Sand, very gravelly loamy fine sand	GP, SM, SP	A-1, A-2, A-3	0	0-5	30-100	25-100	7-95	1-50	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D19A:													
Winterfield, frequently flooded--------	25	0-8	Loamy fine sand	SC-SM, SM	A-2-4, A-4	0	0	100	95-100	50-90	15-45	0-25	NP-7
		8-20	Sand, coarse sand, loamy sand, loamy fine sand	SC-SM, SM, SP, SP-SM	A-2-4, A-3, A-4	0	0	100	95-100	50-90	2-45	0-25	NP-7
		20-80	Sand, gravelly sand, loamy fine sand	SM, SP, SP-SM	A-1-b, A-2-4, A-3	0	0	85-100	70-100	35-80	0-35	0-20	NP-4
Fordum, occasionally flooded--------	10	0-9	Loam	CL, SC, SC-SM	A-4, A-6	0	0-5	80-100	75-100	55-100	45-85	20-35	5-15
		9-38	Silt loam, sandy loam, loam	ML, SM, SC, CL	A-1, A-2, A-4	0	0-5	80-100	75-100	45-100	20-90	15-30	3-10
		38-80	Stratified sand to silt loam	SP-SM, SP, SM, ML	A-1, A-2, A-4	0	0-5	80-100	75-100	35-100	4-50	0-30	NP-6
D20A:													
Isan----------	85	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		34-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
Isan, depressional---	10	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		34-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
Duelm----------	5	0-16	Loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	35-75	10-25	15-20	NP-4
		16-30	Loamy sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	15-20	NP-4
		30-80	Coarse sand, sand	SP-SM, SM, SP	A-1, A-2, A-3	0	0	85-100	75-100	35-75	3-15	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D21A:													
Isan, depressional---	85	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		34-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
Isan----------	15	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		34-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
D23A:													
Southhaven------	90	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
		48-62	Sandy clay loam, loam, sandy loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
		62-66	Loamy coarse sand, loamy sand	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
		66-80	Sand, coarse sand, gravelly sand	SW, SP	A-1-b	0	0	85-100	50-100	5-30	2-12	0-15	NP
Dorset----------	5	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		11-19	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		19-32	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		32-80	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D23A:													
Mosford---------	5	0-13	Sandy loam	SM	A-2-4, A-4	0	0	100	85-100	50-85	25-55	0-25	NP-6
		13-16	Sandy loam, coarse sandy loam, fine sandy loam	SM	A-2-4, A-4	0	0	100	85-100	55-85	25-55	0-25	NP-6
		16-35	Coarse sand, sand, loamy sand	SP, SP-SM	A-2-4, A-3	0	0	100	85-100	45-65	4-30	0-20	NP-4
		35-80	Coarse sand, sand, gravelly coarse sand	SP, SP-SM, SW	A-1, A-3	0	0	95-100	50-100	45-75	4-15	0-20	NP-4
D24A:													
Sedgeville, occasionally flooded--------	85	0-15	Loam	SC-SM, SC, CL-ML, CL	A-4, A-6	0	0-1	80-100	75-100	65-100	45-85	20-35	4-15
		15-45	Silt loam, sandy loam, loam	CL, SC-SM, SC, SM	A-1, A-2-4, A-4	0	0-1	80-100	75-100	35-100	20-90	15-30	3-10
		45-80	Sand, coarse sand, gravelly loamy coarse sand	SP, SM, SP-SM	A-1	0	0-1	80-100	50-100	15-25	1-20	0-10	NP
Elkriver, occasionally flooded--------	15	0-10	Fine sandy loam	ML, SM	A-4	0	0	100	85-100	50-95	30-65	0-25	NP-4
		10-26	Fine sandy loam, very fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		26-32	Very fine sandy loam, fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		32-80	Loamy fine sand, sand, gravelly sand	SM, SP-SM, SP	A-1-b, A-2-4, A-3	0	0	95-100	65-100	35-70	4-15	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D25A:													
Soderville, terrace--------	90	0-9	Loamy fine sand	SP-SM, SM	A-2	0	0	100	100	95-100	10-35	0-20	NP
		9-24	Fine sand, loamy fine sand	SM	A-2	0	0	100	100	95-100	8-35	0-20	NP
		24-31	Stratified loamy fine sand to fine sandy loam	SM	A-2	0	0	100	100	95-100	6-35	0-20	NP
		31-60	Fine sand, sand	SM, SP, SP-SM	A-2, A-3	0	0	100	85-100	85-100	2-20	0-10	NP
Forada----------	10	0-10	Sandy loam	SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-5
		10-33	Fine sandy loam, loam, loamy fine sand	SM	A-4	0	0	100	100	70-100	35-50	20-35	NP-7
		33-60	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
D26A:													
Foldahl, MAP >25	90	0-16	Loamy sand	SM, SC-SM	A-2	0	0	95-100	95-100	50-80	15-30	0-20	NP-6
		16-31	Loamy sand	SM	A-2	0	0	95-100	95-100	50-75	15-30	0-20	NP-4
		31-40	Stratified loamy sand to sandy clay loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	80-95	50-90	25-40	6-16
		40-60	Stratified loamy sand to sandy clay loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	80-95	50-90	25-40	6-16
Hubbard---------	5	0-20	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		20-32	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		32-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
Isan----------	5	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		34-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D27A:													
Dorset, loamy substratum-----	80	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		12-20	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		20-60	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		60-80	Loam, fine sandy loam, gravelly sandy loam	CL-ML, CL, SC, SC-SM	A-1-b, A-2, A-4	0	0-9	55-100	50-95	30-90	15-75	20-30	4-11
Dorset----------	15	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		12-20	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		20-27	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-2, A-1	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		27-60	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Southhaven------	5	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
		48-62	Sandy clay loam, loam, sandy loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
		62-66	Loamy coarse sand, loamy sand	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
		66-80	Gravelly sand, coarse sand, sand	SW, SP	A-1-b	0	0	85-100	50-100	5-30	2-12	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D28B:													
Urban land------	75	---	---	---	---	---	---	---	---	---	---	---	---
Bygland, MAP >25	20	0-9	Silt loam	ML, CL	A-4, A-6	0	0	100	100	95-100	80-95	30-35	7-15
		9-23	Silty clay, clay, silty clay loam	CH, CL	A-7	0	0	100	100	95-100	85-100	45-70	20-45
		23-27	Silty clay loam, silt loam, silty clay	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
		27-80	Stratified silt loam to silty clay loam	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
Bygland, sandy substratum-----	5	0-14	Silt loam	ML, CL	A-4, A-6	0	0	100	100	95-100	80-95	30-35	7-15
		14-26	Silty clay, clay, silty clay loam	CH, CL	A-7	0	0	100	100	95-100	85-100	45-70	20-45
		26-38	Silty clay loam, silt loam, silty clay	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
		38-63	Stratified silt loam to silty clay loam	CL, CH	A-6, A-7	0	0	100	100	90-100	80-95	25-55	10-30
		63-80	Stratified very gravelly coarse sand to loamy sand	GP, SP, SP-SM, GP-GM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
D29B:													
Urban land------	70	---	---	---	---	---	---	---	---	---	---	---	---
Hubbard, bedrock substratum-----	20	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		23-60	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
		60-80	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D29B:													
Hubbard---------	5	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		23-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
Mosford---------	5	0-13	Sandy loam	SM	A-2-4, A-4	0	0	100	85-100	50-85	25-55	0-25	NP-6
		13-16	Sandy loam, coarse sandy loam, fine sandy loam	SM	A-2-4, A-4	0	0	100	85-100	55-85	25-55	0-25	NP-6
		16-35	Coarse sand, sand, loamy sand	SP, SP-SM	A-2-4, A-3	0	0	100	85-100	45-65	4-30	0-20	NP-4
		35-80	Coarse sand, sand, gravelly coarse sand	SP, SP-SM, SW	A-1, A-3	0	0	95-100	50-100	45-75	4-15	0-20	NP-4
D30A:													
Seelyeville, surface drained	45	0-10	Muck	PT	A-8	0	0	---	---	---	---	---	---
		10-80	Muck, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
Markey, surface drained--------	45	0-36	Muck	PT	A-8	---	---	---	---	---	---	---	---
		36-42	Fine sand, loamy sand, coarse sand	SM, SP, SP-SM	A-2, A-3	0	0	100	75-100	60-75	0-20	0-20	NP-4
		42-80	Fine sand, sand, coarse sand	SM, SP, SP-SM	A-2, A-3	0	0	100	75-100	60-75	0-20	0-20	NP-4
Mineral soil, surface drained	10	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		34-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D31A:													
Urban land------	70	---	---	---	---	---	---	---	---	---	---	---	---
Duelm----------	20	0-16	Loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	35-75	10-25	15-20	NP-4
		16-30	Loamy sand, coarse sand, sand	SM, SP-SM	A-2, A-3, A-1	0	0	90-100	85-100	35-75	5-25	15-20	NP-4
		30-80	Coarse sand, sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-75	3-15	0-20	NP-4
Hubbard---------	5	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		23-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
Isan----------	5	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy sand	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		34-80	Sand, coarse sand	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
D33B:													
Urban land------	70	---	---	---	---	---	---	---	---	---	---	---	---
Dorset----------	20	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		12-20	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		20-27	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		27-60	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D33B:													
Verndale, acid substratum-----	5	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SW, SP-SM, SP	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4
Hubbard---------	5	0-20	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		20-32	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		32-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
D33C:													
Urban land------	70	---	---	---	---	---	---	---	---	---	---	---	---
Dorset----------	20	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		11-19	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		19-32	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		32-80	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
Verndale, acid substratum-----	5	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
		10-19	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
		19-28	Sand, coarse sand, loamy coarse sand	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
		28-80	Sand, coarse sand	SP-SM, SP, SW	A-1-b, A-2-4, A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D33C:													
Hubbard---------	5	0-12	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		12-33	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		33-80	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
D34B:													
Urban land------	75	---	---	---	---	---	---	---	---	---	---	---	---
Hubbard---------	20	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		23-80	Sand, coarse sand	SP, SW	A-1, A-3, A-2	0	0	95-100	85-100	20-70	2-5	0-15	NP
Mosford---------	5	0-13	Sandy loam	SM	A-2-4, A-4	0	0	100	85-100	50-85	25-55	0-25	NP-6
		13-16	Sandy loam, coarse sandy loam, fine sandy loam	SM	A-2-4, A-4	0	0	100	85-100	55-85	25-55	0-25	NP-6
		16-35	Coarse sand, sand, loamy sand	SP, SP-SM	A-2-4, A-3	0	0	100	85-100	45-65	4-30	0-20	NP-4
		35-80	Coarse sand, sand, gravelly coarse sand	SP, SP-SM, SW	A-1, A-3	0	0	95-100	50-100	45-75	4-15	0-20	NP-4
D35A:													
Elkriver, occasionally flooded--------	70	0-10	Fine sandy loam	ML, SM	A-4	0	0	100	85-100	50-95	30-65	0-25	NP-4
		10-26	Fine sandy loam, very fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		26-32	Very fine sandy loam, fine sandy loam, loam	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
		32-80	Loamy fine sand, sand, gravelly sand	SM, SP-SM, SP	A-1-b, A-2-4, A-3	0	0	95-100	65-100	35-70	4-15	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
D35A:													
Fordum, occasionally flooded--------	20	0-7	Fine sandy loam	SC-SM, CL-ML, SM	A-1, A-2, A-4	0	0-5	80-100	75-100	45-95	20-65	0-30	NP-7
		7-28	Silt loam, sandy loam, gravelly loam	ML, SM	A-1, A-2, A-4	0	0-5	30-100	25-100	20-100	10-90	0-20	NP-4
		28-80	Sand, very gravelly loamy fine sand	GP, SM, SP	A-1, A-2, A-3	0	0-5	30-100	25-100	7-95	1-50	0-15	NP-4
Udipsamments----	5	---	---	---	---	---	---	---	---	---	---	---	---
Winterfield, occasionally flooded--------	5	0-8	Loamy fine sand	SC-SM, SM	A-2-4, A-4	0	0	100	95-100	50-90	15-45	0-25	NP-7
		8-20	Sand, coarse sand, loamy sand, loamy fine sand	SC-SM, SM, SP, SP-SM	A-2-4, A-3, A-4	0	0	100	95-100	50-90	2-45	0-25	NP-7
		20-80	Sand, gravelly sand, loamy fine sand	SM, SP, SP-SM	A-1-b, A-2-4, A-3	0	0	85-100	70-100	35-80	0-35	0-20	NP-4
D37F:													
Dorset, bedrock substratum-----	70	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		12-20	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		20-27	Gravelly loamy sand, gravelly coarse sand, coarse sand	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
		27-60	Gravelly coarse sand, gravelly sand, coarse sand	GP-GM, GP, SP-SM, SP	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
		60-80	Unweathered bedrock			---	---	---	---	---	---	---	---
Rock outcrop----	20	---	---	---	---	---	---	---	---	---	---	---	---

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D37F:													
Hubbard, bedrock substratum-----	10	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse sand, loamy sand	SP-SM	A-1, A-2-4, A-3	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
		23-60	Sand, coarse sand	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
		60-80	Unweathered bedrock			---	---	---	---	---	---	---	---
D40A:													
Kratka, thick solum----------	80	0-10	Loamy fine sand	SM	A-2	0	0	95-100	90-100	50-80	15-35	0-20	NP-4
		10-30	Loamy sand, fine sand, sand	SP, SP-SM	A-2, A-3	0	0	95-100	90-100	50-80	4-10	0-20	NP-4
		30-60	Loam, clay loam, sandy loam	SC-SM, SC, CL, CL-ML	A-4, A-6	0	0-3	95-100	85-96	70-90	40-60	21-43	4-21
Duelm----------	10	0-16	Loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	35-75	10-25	15-20	NP-4
		16-30	Loamy sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	15-20	NP-4
		30-80	Coarse sand, sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	35-75	3-15	0-20	NP-4
Foldahl, MAP >25	10	0-16	Loamy sand	SC-SM, SM	A-2	0	0	95-100	95-100	50-80	15-30	0-20	NP-6
		16-31	Loamy sand	SM	A-2	0	0	95-100	95-100	50-75	15-30	0-20	NP-4
		31-40	Stratified loamy sand to sandy clay loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	80-95	50-90	25-40	6-16
		40-60	Stratified loamy sand to sandy clay loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	80-95	50-90	25-40	6-16
D41C:													
Urban land------	75	---	---	---	---	---	---	---	---	---	---	---	---
Waukon----------	20	0-8	Fine sandy loam	SM, SC-SM	A-4	0-1	0-3	95-100	90-100	60-70	35-50	15-25	1-7
		8-43	Clay loam, loam	CL, ML	A-6, A-7	0-1	0-3	95-100	90-100	75-95	50-85	30-45	7-20
		43-80	Loam, clay loam	ML, CL	A-6	0-1	0-3	95-100	90-100	70-95	50-80	30-40	7-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
D41C:													
Braham----------	5	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-42	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		42-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
D43A:													
Gonvick, terrace	85	0-12	Loam	ML, CL-ML, CL	A-4, A-6	0	0-3	95-100	90-100	85-95	50-75	20-40	3-20
		12-30	Loam, clay loam	CL	A-6, A-7	0	0-3	95-100	90-100	75-95	50-85	20-50	10-30
		30-60	Loam, clay loam	CL, CL-ML	A-4, A-6	0	0-3	95-100	90-100	70-95	50-80	15-40	5-20
Braham----------	15	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-42	Sandy clay loam, fine sandy loam, clay loam	CL, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	10-21
		42-60	Sandy clay loam, loam, clay loam	CL, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	10-21
GP.													
Pits, gravel-													
Udipsamments													

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L2B:													
Malardi---------	65	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Hawick----------	25	0-7	Sandy loam	SM	A-2	0-2	0-5	85-100	80-95	50-65	25-35	0-20	NP-4
		7-11	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
		11-80	Gravelly coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0-2	0-5	50-95	50-95	30-65	2-10	0-15	NP
Rasset----------	5	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	Sandy loam, loam	SC, SC-SM, SM	A-4, A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		28-36	Loamy sand, loamy coarse sand, gravelly sand	SM, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
		36-80	Sand, coarse sand, gravelly sand	SP-SM, SP, SW	A-1, A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4
Eden Prairie----	5	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L2C:													
Malardi---------	60	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Hawick----------	25	0-7	Sandy loam	SM	A-2	0-2	0-5	85-100	80-95	50-65	25-35	0-20	NP-4
		7-11	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
		11-80	Gravelly coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0-2	0-5	50-95	50-95	30-65	2-10	0-15	NP
Tomall----------	10	0-33	Loam	CL-ML, SM, SC	A-4	0	0	100	100	85-100	45-90	20-30	2-10
		33-42	Loam, sandy loam	SC, SM	A-4	0	0	100	95-100	85-100	45-90	20-30	2-10
		42-47	Gravelly coarse sand, loamy coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
		47-80	Gravelly loamy coarse sand, coarse sand, sand	SP, SP-SM	A-3, A-1, A-2	0	0	60-100	50-90	20-60	2-10	0-20	NP
Crowfork--------	5	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-20	Fine sand, loamy fine sand, loamy sand	SP-SM, SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		20-76	Fine sand, loamy sand, sand	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		76-80	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L2D:													
Malardi---------	55	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		14-21	Coarse sand, loamy coarse sand, gravelly coarse sand, gravelly loamy coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		21-80	Sand, coarse sand, gravelly sand	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Hawick----------	30	0-7	Sandy loam	SM	A-2	0-2	0-5	85-100	80-95	50-65	25-35	0-20	NP-4
		7-11	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
		11-80	Gravelly coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0-2	0-5	50-95	50-95	30-65	2-10	0-15	NP
Tomall----------	10	0-33	Loam	CL-ML, SM, SC	A-4	0	0	100	100	85-100	45-90	20-30	2-10
		33-42	Loam, sandy loam	SC, SM	A-4	0	0	100	95-100	85-100	45-90	20-30	2-10
		42-47	Gravelly coarse sand, loamy coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
		47-80	Gravelly loamy coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	60-100	50-90	20-60	2-10	0-20	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L2D:													
Crowfork--------	5	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-20	Fine sand, loamy fine sand, loamy sand	SM, SP-SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		20-76	Fine sand, loamy sand, sand	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		76-80	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-15	NP
L2E:													
Malardi---------	55	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		14-21	Coarse sand, loamy coarse sand, gravelly coarse sand, gravelly loamy coarse sand	SC-SM, SM, SP-SM	A-3, A-1, A-2	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		21-80	Sand, coarse sand, gravelly sand	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Hawick----------	30	0-7	Sandy loam	SM	A-2	0-2	0-5	85-100	80-95	50-65	25-35	0-20	NP-4
		7-11	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
		11-80	Gravelly coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0-2	0-5	50-95	50-95	30-65	2-10	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L2E:													
Tomall----------	15	0-33	Loam	CL-ML, SM, SC	A-4	0	0	100	100	85-100	45-90	20-30	2-10
		33-42	Loam, sandy loam	SC, SM	A-4	0	0	100	95-100	85-100	45-90	20-30	2-10
		42-47	Gravelly coarse sand, loamy coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
		47-80	Gravelly loamy coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	60-100	50-90	20-60	2-10	0-20	NP
L3A:													
Rasset----------	90	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	Sandy loam, loam	SC, SC-SM, SM	A-4, A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		28-36	Loamy sand, loamy coarse sand, gravelly sand	SM, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
		36-80	Sand, coarse sand, gravelly sand	SP-SM, SP, SW	A-1, A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4
Malardi---------	8	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SM, SP-SM, SC-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L3A:													
Eden Prairie----	2	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3
L3B:													
Rasset----------	80	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	Sandy loam, loam	SC, SC-SM, SM	A-4, A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		28-36	Loamy sand, loamy coarse sand, gravelly sand	SM, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
		36-80	Sand, coarse sand, gravelly sand	SP-SM, SP, SW	A-1, A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4
Malardi---------	15	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Eden Prairie----	5	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SC, SM, SC-SM	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L3C:													
Rasset----------	75	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	Sandy loam, loam	SC, SC-SM, SM	A-4, A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		28-36	Loamy sand, loamy coarse sand, gravelly sand	SM, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
		36-80	Sand, coarse sand, gravelly sand	SP-SM, SP, SW	A-1, A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4
Malardi---------	10	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-2, A-1, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Tomall----------	10	0-33	Loam	CL-ML, SM, SC	A-4	0	0	100	100	85-100	45-90	20-35	2-10
		33-42	Loam, sandy loam	SC, SM	A-4	0	0	100	95-100	85-100	45-90	20-30	2-10
		42-47	Gravelly coarse sand, loamy coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
		47-80	Gravelly loamy coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	60-100	50-90	20-60	2-10	0-20	NP
Eden Prairie----	5	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L4B:													
Crowfork--------	90	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-20	Fine sand, loamy fine sand, loamy sand	SP-SM, SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		20-76	Fine sand, loamy sand, sand	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		76-80	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-20	NP
Eden Prairie----	10	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3
L4C:													
Crowfork--------	90	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-20	Fine sand, loamy fine sand, loamy sand	SP-SM, SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		20-76	Fine sand, loamy sand, sand	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		76-80	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-15	NP
Eden Prairie----	10	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L4D:													
Crowfork--------	85	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-20	Fine sand, loamy fine sand, loamy sand	SM, SP-SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		20-76	Fine sand, loamy sand, sand	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		76-80	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-15	NP
Eden Prairie----	15	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3
L6A:													
Biscay----------	85	0-20	Loam	ML, CL	A-7, A-6	0	0	95-100	95-100	70-95	50-80	35-50	10-25
		20-28	Loam, clay loam, sandy clay loam	ML, CL	A-6, A-7	0	0	95-100	90-100	70-90	50-75	30-50	10-20
		28-36	Gravelly loam, sandy loam, gravelly sandy loam	SM, SC-SM, SC	A-4	0	0-5	95-100	70-95	50-80	35-50	0-30	NP-10
		36-60	Stratified very gravelly coarse sand to loamy sand	GP, SP, SP-SM, GP-GM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L6A:													
Biscay, depressional---	10	0-23	Loam	CL, ML	A-6, A-7	0	0	95-100	95-100	70-95	50-80	35-50	10-25
		23-28	Loam, clay loam, sandy clay loam	ML, CL	A-6, A-7	0	0	95-100	90-100	70-90	50-75	30-50	10-20
		28-36	Gravelly loam, sandy loam, gravelly sandy loam	SM, SC-SM, SC	A-4	0	0-5	95-100	70-95	50-80	35-50	0-30	NP-10
		36-60	Stratified very gravelly coarse sand to loamy sand	GP, SP, SP-SM, GP-GM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
Mayer----------	5	0-18	Loam	CL	A-4, A-6	0	0-2	95-100	85-100	70-90	50-85	30-35	9-20
		18-33	Sandy clay loam, silt loam, clay loam	CL, SM, SC	A-4, A-6	0	0-2	80-95	80-85	70-85	35-65	30-35	3-20
		33-80	Gravelly coarse sand, sand, coarse sand	SP-SM, SW, SP	A-1	0-1	0-10	50-95	45-85	20-45	2-10	0-20	NP-4
L7A:													
Biscay, depressional---	80	0-23	Loam	ML, CL	A-6, A-7	0	0	95-100	95-100	70-95	50-80	35-50	10-25
		23-28	Loam, clay loam, sandy clay loam	ML, CL	A-6, A-7	0	0	95-100	90-100	70-90	50-75	30-50	10-20
		28-36	Gravelly loam, sandy loam, gravelly sandy loam	SM, SC-SM, SC	A-4	0	0-5	95-100	70-95	50-80	35-50	0-30	NP-10
		36-60	Stratified very gravelly coarse sand to loamy sand	GP, SP, SP-SM, GP-GM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L7A:													
Biscay----------	15	0-20	Loam	CL, ML	A-6, A-7	0	0	95-100	95-100	70-95	50-80	35-50	10-25
		20-28	Loam, clay loam, sandy clay loam	ML, CL	A-6, A-7	0	0	95-100	90-100	70-90	50-75	30-50	10-20
		28-36	Gravelly loam, sandy loam, gravelly sandy loam	SM, SC-SM, SC	A-4	0	0-5	95-100	70-95	50-80	35-50	0-30	NP-10
		36-60	Stratified very gravelly coarse sand to loamy sand	GP, SP, SP-SM, GP-GM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
Mayer----------	5	0-18	Loam	CL	A-4, A-6	0	0-2	95-100	85-100	70-90	50-85	30-35	9-20
		18-33	Sandy clay loam, silt loam, clay loam	CL, SM, SC	A-4, A-6	0	0-2	80-95	80-85	70-85	35-65	30-35	3-20
		33-80	Gravelly coarse sand, sand, coarse sand	SP-SM, SW, SP	A-1	0-1	0-10	50-95	45-85	20-45	2-10	0-20	NP-4
L8A:													
Darfur----------	95	0-16	Sandy loam	SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-5
		16-32	Fine sandy loam, sandy clay loam, loamy fine sand	SC-SM, SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-7
		32-80	Stratified sand to loamy fine sand to fine sandy loam	SM	A-2, A-4	0	0	100	100	50-100	15-40	0-20	NP
Dassel----------	5	0-14	Fine sandy loam	SM	A-4	0	0	100	95-100	70-85	40-50	15-30	NP-4
		14-31	Stratified loamy fine sand to fine sandy loam	SM	A-2, A-4	0	0	100	95-100	55-80	25-50	15-30	NP-4
		31-80	Stratified coarse sand to loamy sand	SM	A-2	0	0	100	80-100	45-90	10-55	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L9A:													
Minnetonka------	90	0-13	Silty clay loam	MH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-55	15-20
		13-35	Silty clay, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-65	15-35
		35-60	Silty clay loam, silt loam, clay loam	CL, ML, MH	A-6, A-7	0	0	95-100	85-100	75-100	60-95	30-55	10-25
Depressional soil----------	10	0-16	Silty clay loam	MH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-55	15-20
		16-42	Silty clay, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-65	15-35
		42-60	Silty clay loam, silt loam, clay loam	CL, ML, MH	A-6, A-7	0	0	95-100	85-100	75-100	60-95	30-55	10-25
L10B:													
Kasota----------	80	0-10	Silty clay loam	CL	A-7, A-6	0	0	95-100	85-100	75-95	75-90	35-50	11-25
		10-28	Clay loam, clay, silty clay	CH, CL	A-7	0	0	95-100	85-100	80-95	65-90	45-75	20-45
		28-32	Sand, fine sand, gravelly sand	SM, SP-SM	A-1, A-2, A-3	0	0	85-100	65-100	40-75	5-18	0-20	NP-4
		32-60	Gravelly coarse sand, sand, coarse sand	SP, SP-SM, SW	A-1, A-2, A-3	0	0-3	85-100	65-100	20-65	2-10	0-20	NP-4
Eden Prairie----	10	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L10B:													
Wet soil in swales---------	10	0-13	Silty clay loam	MH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-55	15-20
		13-35	Silty clay, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-65	15-35
		35-60	Silty clay loam, silt loam, clay loam	CL, ML, MH	A-6, A-7	0	0	95-100	85-100	75-100	60-95	30-55	10-25
		60-80	Stratified very gravelly coarse sand to loamy sand	GP, SP, SP-SM, GP-GM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
L11B:													
Grays----------	90	0-7	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	90-100	80-95	0-25	NP-5
		7-25	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	80-90	30-45	15-25
		25-60	Stratified very fine sandy loam to silt loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	80-90	0-40	NP-15
Kasota----------	5	0-10	Silty clay loam	CL	A-6, A-7	0	0	95-100	85-100	75-95	75-90	35-50	11-25
		10-28	Clay loam, clay, silty clay	CH, CL	A-7	0	0	95-100	85-100	80-95	65-90	45-75	20-45
		28-32	Gravelly sand, sand, fine sand	SM, SP-SM	A-1, A-2, A-3	0	0	85-100	65-100	40-75	5-18	0-20	NP-4
		32-60	Gravelly coarse sand, sand, coarse sand	SP, SP-SM, SW	A-1, A-2, A-3	0	0-3	85-100	65-100	20-65	2-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L11B:													
Crowfork--------	5	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-20	Fine sand, loamy fine sand, loamy sand	SP-SM, SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		20-76	Fine sand, loamy sand, sand	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		76-80	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-20	NP
L12A:													
Muskego, frequently flooded--------	30	0-9	Muck	PT	A-8	0	0	---	---	---	---	---	---
		9-36	Muck	PT	A-8	0	0	---	---	---	---	---	---
		36-60	Coprogenous earth	OL	A-5	0	0	95-100	95-100	85-100	75-96	40-50	2-8
Blue Earth, frequently flooded--------	30	0-50	Silt loam	OL	A-5	0	0	95-100	95-100	85-95	80-95	41-50	2-8
		50-60	Silty clay loam, clay loam, silt loam	OL	A-5	0	0	95-100	80-100	80-95	80-95	41-50	2-8
Houghton, frequently flooded--------	30	0-80	Muck	PT	A-8	0	0	---	---	---	---	---	---
Oshawa, frequently flooded--------	10	0-12	Silt loam	ML, OL, CL	A-4, A-6	0	0	95-100	95-100	90-100	85-95	30-40	5-15
		12-60	Loam, silt loam, silty clay loam	CL	A-6	0	0	95-100	95-100	90-100	85-95	30-40	10-15

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L13A:													
Klossner, drained--------	80	0-26	Muck	PT	A-8	0	0	---	---	---	---	---	---
		26-36	Mucky silt loam, mucky silty clay loam, silt loam	MH	A-7	0	0	100	95-100	90-100	85-95	60-90	10-30
		36-48	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
		48-80	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25
Mineral soil, drained--------	15	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-20
		31-45	Sandy loam, clay loam, silty clay loam	SC, CL	A-4, A-6	0	0	90-100	85-100	60-95	45-90	30-40	5-20
		45-80	Sandy loam, clay loam, loam	SM, SC, CL	A-4, A-6	0-1	0-2	85-100	75-95	60-90	40-90	25-40	3-20
Houghton, drained--------	5	0-10	Muck	PT	A-8	0	0	---	---	---	---	---	---
		10-80	Muck	PT	A-8	0	0	---	---	---	---	---	---
L14A:													
Houghton, drained--------	80	0-10	Muck	PT	A-8	0	0	---	---	---	---	---	---
		10-80	Muck	PT	A-8	0	0	---	---	---	---	---	---

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L14A:													
Klossner, drained--------	10	0-26	Muck	PT	A-8	0	0	---	---	---	---	---	---
		26-36	Mucky silt loam, mucky silty clay loam, silt loam	MH	A-7	0	0	100	95-100	90-100	85-95	60-90	10-30
		36-48	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
		48-80	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25
Mineral soil, drained--------	10	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-20
		31-45	Sandy loam, clay loam, silty clay loam	SC, CL	A-4, A-6	0	0	90-100	85-100	60-95	45-90	30-40	5-20
		45-80	Sandy loam, clay loam, loam	SM, SC, CL	A-4, A-6	0-1	0-2	85-100	75-95	60-90	40-90	25-40	3-20
L15A:													
Klossner, ponded	30	0-26	Muck	PT	A-8	0	0	---	---	---	---	---	---
		26-33	Silt loam, silty clay loam, mucky silt loam	MH	A-7	0	0	100	95-100	90-100	85-95	60-90	10-30
		33-40	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
		40-80	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L15A:													
Okoboji, ponded	30	0-10	Mucky silty clay loam	MH	A-7	0	0	100	100	95-100	90-95	60-90	10-30
		10-52	Silty clay loam, silty clay	CH	A-7	0	0	100	100	90-100	80-95	55-65	30-40
		52-60	Silty clay loam, silty clay	CH	A-7	0	0	95-100	95-100	90-100	80-95	55-65	30-40
Glencoe, ponded	30	0-42	Silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-55	10-25
		42-50	Loam, clay loam, silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		50-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Houghton, ponded	10	0-80	Muck	PT	A-8	0	0	---	---	---	---	---	---
L16A:													
Muskego, ponded	30	0-9	Muck	PT	A-8	0	0	---	---	---	---	---	---
		9-36	Muck	PT	A-8	0	0	---	---	---	---	---	---
		36-60	Coprogenous earth	OL	A-5	0	0	95-100	95-100	85-100	75-96	40-50	2-8
Blue Earth, ponded---------	30	0-50	Silt loam	OL	A-5	0	0	95-100	95-100	85-95	80-95	41-50	2-8
		50-60	Silty clay loam, clay loam, silt loam	OL	A-5	0	0	95-100	80-100	80-95	80-95	41-50	2-8
Houghton, ponded	30	0-80	Muck	PT	A-8	0	0	---	---	---	---	---	---
Klossner, ponded	10	0-26	Muck	PT	A-8	0	0	---	---	---	---	---	---
		26-33	Silt loam, silty clay loam, mucky silt loam	MH	A-7	0	0	100	95-100	90-100	85-95	60-90	10-30
		33-40	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
		40-80	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L17B:													
Angus----------	50	0-8	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
		35-40	Loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Malardi---------	30	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SM, SP-SM, SC-SM	A-2, A-3, A-1	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Moon----------	10	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SP-SM, SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-46	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		46-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
Cordova---------	10	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
		13-33	Silty clay loam, clay loam	CL	A-7	0	0	90-100	90-100	85-95	65-90	40-50	20-30
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L18A:													
Shields---------	85	0-8	Silty clay loam	CL, ML	A-6, A-7	0	0	95-100	95-100	90-100	85-95	35-50	12-20
		8-41	Silty clay, clay	CL, CH, MH	A-7	0	0	95-100	95-100	90-100	85-95	45-70	20-35
		41-80	Silty clay loam, clay loam, clay	MH, CL, ML	A-6, A-7	0	0	95-100	90-100	85-100	80-95	35-65	12-30

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L18A:													
Lerdal----------	10	0-9	Silty clay loam	ML, CL	A-6, A-7	0	0	95-100	90-100	80-95	60-90	35-50	12-20
		9-42	Silty clay, clay loam, silty clay loam	CL, CH, MH	A-7	0	0	95-100	90-100	80-95	70-90	45-70	20-35
		42-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Mazaska---------	5	0-15	Silty clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	85-100	70-95	35-55	12-28
		15-42	Clay, silty clay loam	CH, CL	A-7	0	0	90-100	85-100	75-95	60-90	40-65	15-35
		42-80	Loam, clay loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L19B:													
Moon----------	85	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-46	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		46-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
Finchford-------	15	0-18	Loamy sand	SM	A-3, A-2	0	0	90-95	85-90	50-60	5-15	0-20	NP-4
		18-30	Sand, loamy sand, gravelly sand	SW-SM	A-1	0	0	80-90	50-75	25-40	5-10	0-20	NP-4
		30-60	Gravelly sand, gravelly coarse sand, sand	SP-SM, SW-SM, SW, SP	A-1	0	0	75-95	50-95	20-35	3-5	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L20B:													
Fedji, silty substratum-----	85	0-10	Loamy fine sand	SM	A-2	0	0	100	95-100	50-75	15-30	0-20	NP-4
		10-30	Loamy fine sand, sand, loamy sand	SP-SM, SM	A-2	0	0	100	95-100	50-75	10-30	0-20	NP-4
		30-39	Silt loam, silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	85-95	28-43	10-21
		39-60	Silt loam, silty clay loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	95-100	85-95	21-39	3-18
Finchford-------	15	0-18	Loamy sand	SM	A-3, A-2	0	0	90-95	85-90	50-60	5-15	0-20	NP-4
		18-30	Sand, loamy sand, gravelly sand	SW-SM	A-1	0	0	80-90	50-75	25-40	5-10	0-20	NP-4
		30-60	Gravelly sand, gravelly coarse sand, sand	SW-SM, SW, SP-SM, SP	A-1	0	0	75-95	50-95	20-35	3-5	0-15	NP
L21A:													
Canisteo--------	80	0-17	Loam	CL	A-6	0	0	95-100	95-100	85-100	60-100	30-40	12-20
		17-36	Clay loam, loam	CL	A-6	0	0-5	90-100	80-95	60-95	50-85	30-40	15-20
		36-80	Loam, clay loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Cordova---------	15	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
		13-33	Silty clay loam, clay loam	CL	A-7	0	0	90-100	90-100	85-95	65-90	40-50	20-30
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Glencoe---------	5	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		31-45	Loam, clay loam, silty clay loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		45-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	10-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L22C2:													
Lester, eroded--	70	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Angus----------	15	0-8	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
		35-40	Loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	12	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	3	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L22D2:													
Lester, eroded--	80	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	10	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL-ML, CL	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	5	0-24	Loam	CL, ML	A-6, A-4	0	0	100	95-100	85-100	60-85	30-40	5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	5	0-23	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		23-38	Loam, clay loam	CL, CL-ML	A-6, A-7	0	0-3	95-100	90-100	70-90	60-80	25-45	5-20
		38-50	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L22E:													
Lester, morainic	75	0-5	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	15	0-24	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		37-57	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	5	0-22	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		22-41	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		41-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	5	0-32	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
L22F:													
Lester, morainic	75	0-5	Loam	CL, CL-ML	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	10	0-24	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		37-57	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	10	0-32	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
Hamel----------	5	0-22	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		22-41	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		41-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L23A:													
Cordova---------	85	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
		13-33	Silty clay loam, clay loam	CL	A-7	0	0	90-100	90-100	85-95	65-90	40-50	20-30
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Glencoe, depressional---	10	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		31-45	Loam, clay loam, silty clay loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		45-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	10-20
Nessel----------	5	0-6	Loam	CL, CL-ML	A-4, A-6	0	0-2	95-100	95-100	85-95	50-80	20-35	4-12
		6-38	Loam, clay loam	CL	A-6, A-7	0-1	0-2	90-100	85-100	80-95	55-75	35-50	15-25
		38-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L24A:													
Glencoe---------	90	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		31-45	Loam, clay loam, silty clay loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		45-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	10-20
Cordova---------	10	0-13	Loam	CL	A-6, A-4	0	0	95-100	95-100	90-100	70-85	25-40	8-20
		13-33	Silty clay loam, clay loam	CL	A-7	0	0	90-100	90-100	85-95	65-90	40-50	20-30
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L25A:													
Le Sueur--------	80	0-17	Loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	70-85	20-40	5-15
		17-36	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	95-100	85-100	60-80	35-50	15-25
		36-46	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L25A:													
Cordova---------	15	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
		13-33	Silty clay loam, clay loam	CL	A-7	0	0	90-100	90-100	85-95	65-90	40-50	20-30
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Angus----------	5	0-8	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
		35-40	Loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L26A:													
Shorewood-------	85	0-17	Silty clay loam	CL, ML	A-6, A-7	0	0	100	100	90-100	85-100	35-50	12-20
		17-39	Silty clay, silty clay loam	CH, MH	A-7	0	0	100	100	90-100	85-100	55-75	20-45
		39-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Minnetonka------	10	0-13	Silty clay loam	MH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-55	15-20
		13-35	Silty clay, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-65	15-35
		35-60	Silty clay loam, silt loam, clay loam	CL, ML, MH	A-6, A-7	0	0	95-100	85-100	75-100	60-95	30-55	10-25
Good Thunder----	5	0-15	Silty clay loam	CL, ML	A-6, A-7	0	0	100	100	90-100	85-100	35-50	12-20
		15-32	Silty clay, silty clay loam	CH	A-7	0	0	100	100	90-100	85-100	45-75	20-40
		32-80	Silt loam, silty clay loam	CL, CL-ML, ML	A-4, A-6, A-7	0	0	100	100	95-100	85-100	25-50	5-20
L26B:													
Shorewood-------	90	0-17	Silty clay loam	CL, ML	A-6, A-7	0	0	100	100	90-100	85-100	35-50	12-20
		17-39	Silty clay, silty clay loam	CH, MH	A-7	0	0	100	100	90-100	85-100	55-75	20-45
		39-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L26B:													
Good Thunder----	5	0-15	Silty clay loam	CL, ML	A-6, A-7-6	0	0	100	100	90-100	85-100	35-50	12-20
		15-32	Silty clay, silty clay loam	CH	A-7	0	0	100	100	90-100	85-100	45-75	20-40
		32-80	Silt loam, silty clay loam	CL, CL-ML, ML	A-4, A-6, A-7	0	0	100	100	95-100	85-100	25-50	5-20
Minnetonka------	5	0-13	Silty clay loam	MH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-55	15-20
		13-35	Silty clay, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-65	15-35
		35-60	Silty clay loam, silt loam, clay loam	CL, ML, MH	A-6, A-7	0	0	95-100	85-100	75-100	60-95	30-55	10-25
L26C2:													
Shorewood, eroded---------	95	0-17	Silty clay loam	CL, ML	A-6, A-7	0	0	100	100	90-100	85-100	35-50	12-20
		17-39	Silty clay, silty clay loam	CH, MH	A-7	0	0	100	100	90-100	85-100	55-75	20-45
		39-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Minnetonka------	5	0-13	Silty clay loam	MH, CL	A-7	0	0	95-100	95-100	90-98	85-95	40-55	15-20
		13-35	Silty clay, silty clay loam	CL, CH	A-7	0	0	95-100	95-100	90-98	85-95	40-65	15-35
		35-60	Silty clay loam, silt loam, clay loam	CL, ML, MH	A-6, A-7	0	0	95-100	85-100	75-100	60-95	30-55	10-25
L27A:													
Suckercreek, frequently flooded--------	85	0-22	Loam	CL-ML, CL	A-4	0	0	100	100	85-95	50-85	15-30	5-10
		22-80	Loam, sandy loam, loamy fine sand	SM, SC	A-2, A-4	0	0	95-100	85-100	65-90	20-70	0-30	NP-10

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L27A:													
Suckercreek, occasionally flooded--------	10	0-12	Fine sandy loam	CL-ML, SM	A-4	0	0	100	100	85-95	45-85	15-25	NP-7
		12-80	Loam, fine sandy loam, loamy fine sand	SC, SM	A-2, A-4	0	0	95-100	85-100	65-90	20-70	0-30	NP-10
Hanlon, occasionally flooded--------	5	0-40	Fine sandy loam	SM, SC, SC-SM	A-4	0	0	100	100	75-80	35-50	25-35	5-10
		40-63	Fine sandy loam, sandy loam	SM, SC, SC-SM	A-4	0	0	100	100	75-80	35-50	25-35	5-10
		63-70	Sandy loam, fine sandy loam, loamy fine sand	SC, SC-SM	A-2, A-4	0	0	100	100	75-80	25-40	15-25	5-10
		70-80	Stratified sand to loamy fine sand to fine sandy loam, sandy loam, loamy sand	SP-SM, CL, SC, SC-SM	A-2, A-4	0	0	100	100	80-90	5-60	15-35	3-10
L28A:													
Suckercreek, occasionally flooded--------	80	0-12	Fine sandy loam	CL-ML, SM	A-4	0	0	100	100	85-95	45-85	15-25	NP-7
		12-80	Loam, fine sandy loam, loamy fine sand	SC, SM	A-2, A-4	0	0	95-100	85-100	65-90	20-70	0-30	NP-10
Suckercreek, frequently flooded--------	10	0-22	Loam	CL-ML, CL	A-4	0	0	100	100	85-95	50-85	15-30	5-10
		22-80	Loam, sandy loam, loamy fine sand	SC, SM	A-4, A-2	0	0	95-100	85-100	65-90	20-70	0-30	NP-10

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L28A:													
Hanlon, occasionally flooded--------	10	0-40	Fine sandy loam	SM, SC, SC-SM	A-4	0	0	100	100	75-80	35-50	25-35	5-10
		40-63	Fine sandy loam, sandy loam	SM, SC, SC-SM	A-4	0	0	100	100	75-80	35-50	25-35	5-10
		63-70	Sandy loam, fine sandy loam, loamy fine sand	SC, SC-SM	A-2, A-4	0	0	100	100	75-80	25-40	15-25	5-10
		70-80	Stratified sand to loamy fine sand to fine sandy loam, sandy loam, loamy sand	SP-SM, CL, SC, SC-SM	A-2, A-4	0	0	100	100	80-90	5-60	15-35	3-10
L29A:													
Hanlon, occasionally flooded--------	80	0-40	Fine sandy loam	SM, SC, SC-SM	A-4	0	0	100	100	75-80	35-50	25-35	5-10
		40-63	Fine sandy loam, sandy loam	SM, SC, SC-SM	A-4	0	0	100	100	75-80	35-50	25-35	5-10
		63-70	Sandy loam, fine sandy loam, loamy fine sand	SC, SC-SM	A-2, A-4	0	0	100	100	75-80	25-40	15-25	5-10
		70-80	Stratified sand to loamy fine sand to fine sandy loam, sandy loam, loamy sand	SP-SM, CL, SC, SC-SM	A-2, A-4	0	0	100	100	80-90	5-60	15-35	3-10
Suckercreek, occasionally flooded--------	10	0-12	Fine sandy loam	CL-ML, SM	A-4	0	0	100	100	85-95	45-85	15-25	NP-7
		12-80	Loam, fine sandy loam, loamy fine sand	SC, SM	A-2, A-4	0	0	95-100	85-100	65-90	20-70	0-30	NP-10

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L29A:													
Suckercreek, frequently flooded--------	10	0-22	Loam	CL-ML, CL	A-4	0	0	100	100	85-95	50-85	15-30	5-10
		22-80	Loam, sandy loam, loamy fine sand	SC, SM	A-4, A-2	0	0	95-100	85-100	65-90	20-70	0-30	NP-10
L30A:													
Medo, surface drained--------	65	0-27	Muck	PT	A-8	---	---	---	---	---	---	---	---
		27-35	Sandy clay loam, mucky loam, silt loam	CL, ML	A-6, A-7	0	0	85-100	75-100	55-95	45-85	35-50	7-22
		35-39	Sandy clay loam	SC, CL	A-6, A-7	0	0	85-100	75-100	55-95	45-85	30-65	8-16
		39-80	Sand, gravelly coarse sand, gravelly loamy coarse sand, fine sand	SP, SP-SM, SM	A-1, A-2, A-3, A-4	0-2	0-5	75-95	60-95	20-75	2-40	0-20	NP-4
Medo, drained---	20	0-27	Muck	PT	A-8	---	---	---	---	---	---	---	---
		27-35	Sandy clay loam, mucky loam, silt loam	CL, ML	A-6, A-7	0	0	85-100	75-100	55-95	45-85	35-50	7-22
		35-39	Sandy clay loam	CL, SC	A-6, A-7	0	0	85-100	75-100	55-95	45-85	30-65	8-16
		39-80	Sand, gravelly coarse sand, gravelly loamy coarse sand, fine sand	SP, SP-SM, SM	A-1, A-2, A-3, A-4	0-2	0-5	75-95	60-95	20-75	2-40	0-20	NP-4
Mineral soil, drained--------	15	0-23	Fine sandy loam	SM	A-4	0	0	100	95-100	70-85	40-50	0-30	NP-4
		23-31	Stratified loamy fine sand to fine sandy loam	SM	A-2, A-4	0	0	100	95-100	55-80	25-50	0-30	NP-4
		31-60	Stratified coarse sand to loamy sand	SM, SP-SM, SP	A-2	0	0	100	80-100	45-90	4-55	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L31A:													
Medo, ponded----	30	0-20	Muck	PT	A-8	---	---	---	---	---	---	---	---
		20-34	Loam, sandy clay loam, mucky loam, silt loam	CL, ML	A-6, A-7	0	0	85-100	75-100	55-95	45-85	35-50	7-22
		34-60	Sand, gravelly coarse sand, gravelly loamy coarse sand, fine sand	SP, SP-SM, SM	A-1, A-2, A-3, A-4	0-2	0-5	75-95	60-95	20-75	2-40	0-20	NP-4
Dassel, ponded--	30	0-23	Fine sandy loam	SM	A-4	0	0	100	95-100	70-85	40-50	0-30	NP-4
		23-31	Stratified loamy fine sand to fine sandy loam	SM	A-2, A-4	0	0	100	95-100	55-80	25-50	0-30	NP-4
		31-60	Stratified coarse sand to loamy sand	SM, SP-SM, SP	A-2	0	0	100	80-100	45-90	4-55	0-15	NP
Biscay, ponded--	30	0-24	Loam	CL, ML	A-6, A-7	0	0	95-100	95-100	70-90	50-75	35-50	10-25
		24-29	Loam, clay loam, sandy clay loam	CL, ML	A-6, A-7	0	0	95-100	90-100	70-90	50-75	30-50	10-20
		29-60	Stratified very gravelly coarse sand to loamy sand	GP, GP-GM, SP, SP-SM	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
Houghton, ponded	5	0-80	Muck	PT	A-8	0	0	---	---	---	---	---	---
Muskego, ponded	5	0-9	Muck	PT	A-8	0	0	---	---	---	---	---	---
		9-36	Muck	PT	A-8	0	0	---	---	---	---	---	---
		36-60	Coprogenous earth	OL	A-5	0	0	95-100	95-100	85-100	75-96	40-50	2-8

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L32D:													
Hawick----------	75	0-11	Loamy sand	SM	A-2	0	0	85-95	70-90	50-60	5-15	0-20	NP-4
		11-15	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
		15-80	Stratified gravelly coarse sand to sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0-2	0-5	50-95	50-95	30-65	2-10	0-15	NP
Crowfork--------	15	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-19	Fine sand, loamy fine sand, loamy sand	SM, SP-SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		19-54	Fine sand, loamy sand, sand	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		54-60	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-15	NP
Tomall----------	10	0-33	Loam	CL-ML, SM, SC	A-4	0	0	100	100	85-100	45-90	20-30	2-10
		33-42	Loam, sandy loam	SC, SM	A-4	0	0	100	95-100	85-100	45-90	20-30	2-10
		42-47	Gravelly coarse sand, loamy coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
		47-80	Gravelly loamy coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	60-100	50-90	20-60	2-10	0-20	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L32F:													
Hawick----------	75	0-11	Loamy sand	SM	A-2	0	0	85-95	70-90	50-60	5-15	0-20	NP-4
		11-15	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
		15-80	Stratified gravelly coarse sand to sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0-2	0-5	50-95	50-95	30-65	2-10	0-15	NP
Crowfork--------	15	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-19	Fine sand, loamy fine sand, loamy sand	SM, SP-SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		19-54	Fine sand, loamy sand, sand	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		54-60	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-15	NP
Tomall----------	10	0-33	Loam	CL-ML, SM, SC	A-4	0	0	100	100	85-100	45-90	20-35	2-10
		33-42	Loam, sandy loam	SC, SM	A-4	0	0	100	95-100	85-100	45-90	20-30	2-10
		42-47	Gravelly coarse sand, loamy coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
		47-80	Gravelly loamy coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	60-100	50-90	20-60	2-10	0-20	NP
L35A:													
Lerdal----------	80	0-13	Loam	ML, CL	A-6	0	0	95-100	90-100	80-95	55-75	30-40	6-15
		13-47	Silty clay, clay loam, silty clay loam	CL, CH, MH	A-7	0	0	95-100	90-100	80-95	70-90	45-70	20-35
		47-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L35A:													
Mazaska---------	10	0-15	Silty clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	85-100	70-95	35-55	12-28
		15-42	Clay, silty clay loam	CH, CL	A-7	0	0	90-100	85-100	75-95	60-90	40-65	15-35
		42-80	Loam, clay loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Cordova---------	5	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
		13-33	Silty clay loam, clay loam	CL	A-7	0	0	90-100	90-100	85-95	65-90	40-50	20-30
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Le Sueur--------	5	0-17	Loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	70-85	20-40	5-15
		17-36	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	95-100	85-100	60-80	35-50	15-25
		36-46	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L36A:													
Hamel, overwash	50	0-13	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		13-29	Loam, clay loam	ML, CL	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		29-50	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	43	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	5	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Glencoe---------	2	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		31-45	Loam, clay loam, silty clay loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		45-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	10-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L37B:													
Angus, morainic	80	0-8	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
		35-40	Loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Angus, eroded---	10	0-8	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
		35-58	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		58-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Le Sueur--------	5	0-17	Loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	70-85	20-40	5-15
		17-36	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	95-100	85-100	60-80	35-50	15-25
		36-46	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Cordova---------	5	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
		13-33	Silty clay loam, clay loam	CL	A-7	0	0	90-100	90-100	85-95	65-90	40-50	20-30
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L38A:													
Rushriver, occasionally flooded--------	75	0-46	Very fine sandy loam	SC-SM, SM	A-4	0	0	95-100	75-90	45-75	30-45	0-28	NP-9
		46-80	Stratified coarse sand to silt loam	CL-ML, SC-SM, SM, SP	A-3, A-4, A-1, A-2	0	0-2	95-100	90-100	40-80	4-60	10-20	NP-5
Oshawa, frequently flooded--------	15	0-12	Silt loam	ML, OL, CL	A-4, A-6	0	0	95-100	95-100	90-100	85-95	30-40	5-15
		12-60	Loam, silt loam, silty clay loam	CL	A-6	0	0	95-100	95-100	90-100	85-95	30-40	10-15

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L38A:													
Minneiska, occasionally flooded--------	5	0-10	Fine sandy loam	SM	A-4	0	0	100	95-100	50-70	35-50	15-20	NP-4
		10-60	Stratified sand to silt loam	SM, ML	A-4	0	0	100	85-100	50-90	35-60	15-20	NP-4
Algansee, occasionally flooded--------	5	0-6	Loamy sand	SC-SM, SM	A-2-4	0	0	100	100	50-75	15-35	0-25	NP-5
		6-60	Stratified sand to loam	SP-SM, SM	A-2-4, A-3	0	0	100	100	50-80	5-35	0-14	NP
L39A:													
Minneiska, occasionally flooded--------	70	0-10	Fine sandy loam	SM	A-4	0	0	100	95-100	50-70	35-50	15-20	NP-4
		10-60	Stratified sand to silt loam	SM, ML	A-4	0	0	100	85-100	50-90	35-60	15-20	NP-4
Rushriver, occasionally flooded--------	15	0-46	Very fine sandy loam	SC-SM, SM	A-4	0	0	95-100	75-90	45-75	30-45	0-28	NP-9
		46-80	Stratified coarse sand to silt loam	CL-ML, SC-SM, SM, SP	A-1, A-2, A-3, A-4	0	0-2	95-100	90-100	40-80	4-60	10-20	NP-5
Oshawa, frequently flooded--------	10	0-12	Silt loam	ML, OL, CL	A-4, A-6	0	0	95-100	95-100	90-100	85-95	30-40	5-15
		12-60	Loam, silt loam, silty clay loam	CL	A-6	0	0	95-100	95-100	90-100	85-95	30-40	10-15
Algansee, occasionally flooded--------	5	0-6	Loamy sand	SC-SM, SM	A-2-4	0	0	100	100	50-75	15-35	0-25	NP-5
		6-60	Stratified sand to loam	SP-SM, SM	A-2-4, A-3	0	0	100	100	50-80	5-35	0-14	NP
L40B:													
Angus----------	45	0-8	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
		35-40	Loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L40B:													
Kilkenny--------	40	0-11	Clay loam	ML, CL	A-6, A-7	0	0	95-100	95-100	80-95	70-85	35-50	10-25
		11-35	Clay loam, clay, silty clay loam	CH, MH	A-7	0	0	95-100	90-100	80-95	65-80	50-70	25-35
		35-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Lerdal----------	10	0-8	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-95	60-90	35-50	10-22
		8-12	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-95	60-90	35-50	10-22
		12-41	Silty clay loam, clay loam	CL, CH, MH	A-7	0	0	95-100	90-100	80-95	70-90	45-70	20-35
		41-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Mazaska---------	5	0-15	Silty clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	85-100	70-95	35-55	12-28
		15-42	Clay, silty clay loam	CH, CL	A-7	0	0	90-100	85-100	75-95	60-90	40-65	15-35
		42-80	Loam, clay loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L41C2:													
Lester, eroded--	45	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Kilkenny, eroded	40	0-9	Clay loam	ML, CL	A-6, A-7	0	0	95-100	95-100	80-95	70-85	35-50	10-25
		9-53	Clay loam, clay, silty clay loam	CH, MH	A-7	0	0	95-100	90-100	80-95	65-80	50-70	25-35
		53-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	10	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Derrynane-------	5	0-19	Clay loam	CH, CL	A-7	0	0	100	95-100	80-90	75-90	46-56	25-33
		19-39	Silty clay, silty clay loam, clay loam	CH, CL	A-6, A-7	0	0	100	95-100	85-95	70-90	40-65	20-35
		39-65	Clay loam	CL	A-7	0	0	95-100	95-100	85-95	70-90	43-50	22-28
		65-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L41D2:													
Lester, eroded--	45	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Kilkenny, eroded	35	0-9	Clay loam	ML, CL	A-6, A-7	0	0	95-100	95-100	80-95	70-85	35-50	10-25
		9-53	Clay loam, clay, silty clay loam	CH, MH	A-7	0	0	95-100	90-100	80-95	65-80	50-70	25-35
		53-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	10	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Derrynane-------	5	0-19	Clay loam	CH, CL	A-7	0	0	100	95-100	80-90	75-90	46-56	25-33
		19-39	Silty clay, silty clay loam, clay loam	CH, CL	A-6, A-7	0	0	100	95-100	85-95	70-90	40-65	20-35
		39-65	Clay loam	CL	A-7	0	0	95-100	95-100	85-95	70-90	43-50	22-28
		65-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	5	0-23	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		23-38	Loam, clay loam	CL, CL-ML	A-6, A-7	0	0-3	95-100	90-100	70-90	60-80	25-45	5-20
		38-50	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L41E:													
Lester----------	45	0-5	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Kilkenny--------	40	0-7	Clay loam	ML, CL	A-6, A-7	0	0	95-100	95-100	80-95	70-85	35-50	10-25
		7-31	Clay loam, clay, silty clay loam	CH, MH	A-7	0	0	95-100	90-100	80-95	65-80	50-70	25-35
		31-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	5	0-24	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		37-57	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L41E:													
Derrynane-------	5	0-20	Clay loam	CH, CL	A-7	0	0	100	95-100	80-90	75-90	46-56	25-33
		20-40	Silty clay, silty clay loam, clay loam	CH, CL	A-7, A-6	0	0	100	95-100	85-95	70-90	40-65	20-35
		40-54	Clay loam	CL	A-7	0	0	95-100	95-100	85-95	70-90	43-50	22-28
		54-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	5	0-32	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
L41F:													
Lester----------	45	0-5	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Kilkenny--------	35	0-7	Clay loam	ML, CL	A-6, A-7	0	0	95-100	95-100	80-95	70-85	35-50	10-25
		7-31	Clay loam, clay, silty clay loam	CH, MH	A-7	0	0	95-100	90-100	80-95	65-80	50-70	25-35
		31-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	10	0-32	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
Terril----------	5	0-24	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		37-57	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Derrynane-------	5	0-20	Clay loam	CH, CL	A-7	0	0	100	95-100	80-90	75-90	46-56	25-33
		20-40	Silty clay, silty clay loam, clay loam	CH, CL	A-6, A-7	0	0	100	95-100	85-95	70-90	40-65	20-35
		40-54	Clay loam	CL	A-7	0	0	95-100	95-100	85-95	70-90	43-50	22-28
		54-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L42B:													
Kingsley--------	70	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC-SM, SM, SC	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
Gotham----------	25	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
		9-18	Loamy fine sand, loamy sand	SP-SM, SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	12-50	0-14	NP
		18-40	Sand, loamy fine sand, loamy sand	SP-SM, SM, SP	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
		40-80	Fine sand, loamy sand, sand	SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-80	1-35	0-14	NP
Grays----------	5	0-7	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	90-100	80-95	0-25	NP-5
		7-25	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	80-90	30-45	15-25
		25-60	Stratified very fine sandy loam to silt loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	80-90	0-40	NP-15
L42C:													
Kingsley--------	70	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L42C:													
Gotham----------	25	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
		9-18	Loamy fine sand, loamy sand	SP-SM, SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	12-50	0-14	NP
		18-40	Sand, loamy fine sand, loamy sand	SP-SM, SM, SP	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
		40-80	Fine sand, loamy sand, sand	SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-80	1-35	0-14	NP
Grays----------	5	0-7	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	90-100	80-95	0-25	NP-5
		7-25	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	80-90	30-45	15-25
		25-60	Stratified very fine sandy loam to silt loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	80-90	0-40	NP-15
L42D:													
Kingsley--------	70	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC-SM, SM, SC	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
Gotham----------	25	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
		9-18	Loamy fine sand, loamy sand	SM, SP-SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	12-50	0-14	NP
		18-40	Sand, loamy fine sand, loamy sand	SP-SM, SM, SP	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
		40-80	Fine sand, loamy sand, sand	SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-80	1-35	0-14	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L42D:													
Grays----------	5	0-7	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	90-100	80-95	0-25	NP-5
		7-25	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	80-90	30-45	15-25
		25-60	Stratified very fine sandy loam to silt loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	80-90	0-40	NP-15
L42E:													
Kingsley--------	70	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC-SM, SM, SC	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
Gotham----------	25	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
		9-18	Loamy fine sand, loamy sand	SP-SM, SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	12-50	0-14	NP
		18-40	Sand, loamy fine sand, loamy sand	SP-SM, SM, SP	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
		40-80	Fine sand, loamy sand, sand	SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-80	1-35	0-14	NP
Grays----------	5	0-7	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	90-100	80-95	0-25	NP-5
		7-25	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	80-90	30-45	15-25
		25-60	Stratified very fine sandy loam to silt loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	80-90	0-40	NP-15

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L42F:													
Kingsley--------	70	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC-SM, SM, SC	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
Gotham----------	25	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
		9-18	Loamy fine sand, loamy sand	SP-SM, SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	12-50	0-14	NP
		18-40	Sand, loamy fine sand, loamy sand	SP, SP-SM, SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
		40-80	Fine sand, loamy sand, sand	SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-80	1-35	0-14	NP
Grays----------	5	0-7	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	90-100	80-95	0-25	NP-5
		7-25	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	80-90	30-45	15-25
		25-60	Stratified very fine sandy loam to silt loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	80-90	0-40	NP-15
L43A:													
Brouillett, occasionally flooded--------	80	0-14	Loam	CL, CL-ML, ML	A-4, A-6	0	0	90-100	90-100	80-100	65-95	20-35	NP-12
		14-36	Silt loam, loam	CL, CL-ML, ML	A-4, A-6, A-7	0	0	90-100	90-100	70-100	55-95	22-45	3-20
		36-44	Silt loam, loam, clay loam	CL, CL-ML	A-6	0	0	90-100	90-100	70-100	55-95	20-40	3-20
		44-60	Stratified loamy very fine sand to silt loam	CL, ML, SC-SM	A-2-4, A-4, A-6	0	0	85-100	80-100	60-100	25-100	10-35	NP-12

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L43A:													
Minneiska, occasionally flooded--------	10	0-10	Fine sandy loam	SM	A-4	0	0	100	95-100	50-70	35-50	15-20	NP-4
		10-60	Stratified sand to silt loam	SM, ML	A-4	0	0	100	85-100	50-90	35-60	15-20	NP-4
Rushriver, occasionally flooded--------	10	0-46	Very fine sandy loam	SC-SM, SM	A-4	0	0	95-100	75-90	45-75	30-45	0-28	NP-9
		46-80	Stratified coarse sand to silt loam	CL-ML, SC-SM, SM, SP	A-1, A-2, A-3, A-4	0	0-2	95-100	90-100	40-80	4-60	10-20	NP-5
L44A:													
Nessel----------	85	0-6	Loam	CL, CL-ML	A-4, A-6	0	0-2	95-100	95-100	85-95	50-80	20-35	4-12
		6-38	Loam, clay loam	CL	A-6, A-7	0-1	0-2	90-100	85-100	80-95	55-75	35-50	15-25
		38-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Cordova---------	10	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
		13-33	Silty clay loam, clay loam	CL	A-7	0	0	90-100	90-100	85-95	65-90	40-50	20-30
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Angus----------	5	0-8	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
		35-40	Loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L45A:													
Dundas----------	65	0-9	Silt loam	CL, ML	A-4, A-6	0	0	100	95-98	85-97	60-80	30-40	6-16
		9-15	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		15-40	Clay loam, silty clay loam, sandy clay loam	CH, CL	A-6, A-7	0	0-2	97-100	90-98	85-97	50-90	35-60	15-30
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Cordova---------	25	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
		13-33	Silty clay loam, clay loam	CL	A-7	0	0	90-100	90-100	85-95	65-90	40-50	20-30
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L45A:													
Nessel----------	5	0-6	Loam	CL, CL-ML	A-4, A-6	0	0-2	95-100	95-100	85-95	50-80	20-35	2-12
		6-38	Loam, clay loam	CL	A-6, A-7	0-1	0-2	90-100	85-100	80-95	55-75	35-50	15-25
		38-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Glencoe---------	5	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		31-45	Loam, clay loam, silty clay loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		45-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	10-20
L46A:													
Tomall----------	80	0-33	Loam	CL-ML, SC, SM	A-4	0	0	100	100	85-100	45-90	20-30	2-10
		33-42	Loam, sandy loam	SC, SM	A-4	0	0	100	95-100	85-100	45-90	20-30	2-10
		42-47	Gravelly coarse sand, loamy coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
		47-80	Gravelly loamy coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0	0	60-100	50-90	20-60	2-10	0-20	NP
Rasset----------	10	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	Sandy loam, loam	SC, SC-SM, SM	A-4, A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		28-36	Loamy sand, loamy coarse sand, gravelly sand	SM, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
		36-80	Sand, coarse sand, gravelly sand	SP-SM, SP, SW	A-1, A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L46A:													
Malardi---------	10	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
L47A:													
Eden Prairie----	85	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3
Malardi---------	10	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L47A:													
Rasset----------	5	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	Sandy loam, loam	SC-SM, SM, SC	A-4, A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		28-36	Loamy sand, loamy coarse sand, gravelly sand	SM, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
		36-80	Sand, coarse sand, gravelly sand	SP-SM, SP, SW	A-1, A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4
L47B:													
Eden Prairie----	80	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3
Malardi---------	10	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Rasset----------	10	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	Sandy loam, loam	SC, SC-SM, SM	A-4, A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		28-36	Loamy sand, loamy coarse sand, gravelly sand	SM, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
		36-80	Sand, coarse sand, gravelly sand	SW, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L47C:													
Eden Prairie----	70	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3
Malardi---------	10	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP, GP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Rasset----------	10	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	Sandy loam, loam	SC, SC-SM, SM	A-4, A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		28-36	Loamy sand, loamy coarse sand, gravelly sand	SM, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
		36-80	Sand, coarse sand, gravelly sand	SW, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4
Hawick----------	10	0-7	Sandy loam	SM	A-2	0-2	0-5	85-100	80-95	50-65	25-35	0-20	NP-4
		7-11	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
		11-80	Gravelly coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0-2	0-5	50-95	50-95	30-65	2-10	0-15	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L49A:													
Klossner, surface drained	65	0-26	Muck	PT	A-8	0	0	---	---	---	---	---	---
		26-33	Silt loam, silty clay loam, mucky silt loam	MH	A-7	0	0	100	95-100	90-100	85-95	60-90	10-30
		33-40	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
		40-80	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25
Klossner, drained--------	20	0-26	Muck	PT	A-8	0	0	---	---	---	---	---	---
		26-36	Mucky silt loam, mucky silty clay loam, silt loam	MH	A-7	0	0	100	95-100	90-100	85-95	60-90	10-30
		36-48	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
		48-80	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25
Mineral soil, drained--------	15	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-20
		31-45	Sandy loam, clay loam, silty clay loam	SC, CL	A-4, A-6	0	0	90-100	85-100	60-95	45-90	30-40	5-20
		45-80	Sandy loam, clay loam, loam	SM, SC, CL	A-4, A-6	0-1	0-2	85-100	75-95	60-90	40-90	25-40	3-20
L50A:													
Houghton, surface drained	40	0-80	Muck	PT	A-8	0	0	---	---	---	---	---	---

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L50A:													
Muskego, surface drained--------	40	0-9	Muck	PT	A-8	0	0	100	100	100	100	---	---
		9-36	Muck	PT	A-8	0	0	100	100	100	100	---	---
		36-60	Coprogenous earth	OL	A-5	0	0	95-100	95-100	85-100	75-96	40-50	2-8
Klossner, drained--------	10	0-26	Muck	PT	A-8	0	0	---	---	---	---	---	---
		26-36	Mucky silt loam, mucky silty clay loam, silt loam	MH	A-7	0	0	100	95-100	90-100	85-95	60-90	10-30
		36-48	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
		48-80	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25
Mineral soil, drained--------	10	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-20
		31-45	Sandy loam, clay loam, silty clay loam	SC, CL	A-4, A-6	0	0	90-100	85-100	60-95	45-90	30-40	5-20
		45-80	Sandy loam, clay loam, loam	SM, SC, CL	A-4, A-6	0-1	0-2	85-100	75-95	60-90	40-90	25-40	3-20
L52C:													
Urban land------	75	---	---	---	---	---	---	---	---	---	---	---	---
Lester----------	20	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L52C:													
Kingsley--------	5	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC-SM, SM, SC	A-4, A-2	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
L52E:													
Urban land------	75	---	---	---	---	---	---	---	---	---	---	---	---
Lester----------	20	0-5	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Kingsley--------	5	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC-SM, SM, SC	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
L53B:													
Urban land------	70	---	---	---	---	---	---	---	---	---	---	---	---

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L53B:													
Moon----------	20	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-46	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		46-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
Lester----------	10	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L54A:													
Urban land------	70	---	---	---	---	---	---	---	---	---	---	---	---
Dundas----------	20	0-9	Silt loam	CL, ML	A-4, A-6	0	0	100	95-98	85-97	60-80	30-40	6-16
		9-15	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		15-40	Clay loam, silty clay loam, sandy clay loam	CH, CL	A-6, A-7	0	0-2	97-100	90-98	85-97	50-90	35-60	15-30
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Nessel----------	10	0-6	Loam	CL, CL-ML	A-4, A-6	0	0-2	95-100	95-100	85-95	50-80	20-35	4-12
		6-38	Loam, clay loam	CL	A-6, A-7	0-1	0-2	90-100	85-100	80-95	55-75	35-50	15-25
		38-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L55B:													
Urban land------	70	---	---	---	---	---	---	---	---	---	---	---	---

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L55B:													
Malardi---------	20	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-2, A-3, A-1	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Rasset----------	5	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	Sandy loam, loam	SC, SC-SM, SM	A-4, A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		28-36	Loamy sand, loamy coarse sand, gravelly sand	SM, SP-SM, SP	A-1, A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
		36-80	Sand, coarse sand, gravelly sand	SP-SM, SP, SW	A-1, A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4
Eden Prairie----	5	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	55-95	25-40	0-25	NP-5
		10-16	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4	0	0	95-100	85-100	55-95	25-45	15-30	3-14
		16-26	Fine sand, coarse sand, loamy sand	SP-SM, SP	A-2, A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
		26-80	Fine sand, coarse sand, sand	SP-SM, SP	A-2, A-3	0	0	95-100	75-100	50-80	3-10	0-15	NP-3
L55C:													
Urban land------	70	---	---	---	---	---	---	---	---	---	---	---	---

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L55C:													
Malardi---------	20	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Hawick----------	5	0-7	Sandy loam	SM	A-2	0-2	0-5	85-100	80-95	50-65	25-35	0-20	NP-4
		7-11	Gravelly loamy coarse sand, gravelly coarse sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
		11-80	Gravelly coarse sand, coarse sand, sand	SP, SP-SM	A-1, A-2, A-3	0-2	0-5	50-95	50-95	30-65	2-10	0-15	NP
Crowfork--------	5	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-20	Fine sand, loamy fine sand, loamy sand	SP-SM, SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		20-76	Fine sand, loamy sand, sand	SP-SM, SP, SM	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		76-80	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-15	NP
L56A:													
Muskego, frequently flooded--------	45	0-9	Muck	PT	A-8	0	0	---	---	---	---	---	---
		9-36	Muck	PT	A-8	0	0	---	---	---	---	---	---
		36-60	Coprogenous earth	OL	A-5	0	0	95-100	95-100	85-100	75-96	40-50	2-8

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L56A:													
Klossner, frequently flooded--------	45	0-26	Muck	PT	A-8	0	0	---	---	---	---	---	---
		26-33	Silt loam, silty clay loam, mucky silt loam	MH	A-7	0	0	100	95-100	90-100	85-95	60-90	10-30
		33-40	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
		40-80	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25
Suckercreek, frequently flooded--------	10	0-22	Loam	CL-ML, CL	A-4	0	0	100	100	85-95	50-85	15-30	5-10
		22-80	Loam, sandy loam, loamy fine sand	SC, SM	A-2, A-4	0	0	95-100	85-100	65-90	20-70	0-30	NP-10
L58B:													
Koronis---------	60	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay loam, loam, fine sandy loam	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
		30-60	Sandy loam, fine sandy loam, loam	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
Kingsley--------	25	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L58B:													
Forestcity------	10	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-36	Loam, sandy clay loam	SC	A-6	0-4	2-5	95-98	90-95	75-90	45-75	25-40	10-15
		36-60	Loam, sandy clay loam, clay loam	SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
		60-80	Fine sandy loam, sandy loam	SC, SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
Gotham----------	5	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
		9-18	Loamy fine sand, loamy sand	SP-SM, SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	12-50	0-14	NP
		18-40	Sand, loamy fine sand, loamy sand	SP-SM, SM, SP	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
		40-80	Fine sand, loamy sand, sand	SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-80	1-35	0-14	NP
L58C2:													
Koronis, eroded	55	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay loam, loam, fine sandy loam	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
		30-60	Sandy loam, fine sandy loam, loam	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
Kingsley, eroded	25	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L58C2:													
Forestcity------	15	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-36	Loam, sandy clay loam	SC	A-6	0-4	2-5	95-98	90-95	75-90	45-75	25-40	10-15
		36-60	Loam, sandy clay loam, clay loam	SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
		60-80	Fine sandy loam, sandy loam	SC, SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
Gotham----------	5	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
		9-18	Loamy fine sand, loamy sand	SP-SM, SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	12-50	0-14	NP
		18-40	Sand, loamy fine sand, loamy sand	SP-SM, SM, SP	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
		40-80	Fine sand, loamy sand, sand	SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-80	1-35	0-14	NP
L58D2:													
Koronis, eroded	55	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay loam, loam, fine sandy loam	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
		30-60	Sandy loam, fine sandy loam, loam	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
Kingsley, eroded	25	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L58D2:													
Forestcity------	15	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-36	Loam, sandy clay loam	SC	A-6	0-4	2-5	95-98	90-95	75-90	45-75	25-40	10-15
		36-60	Loam, sandy clay loam, clay loam	SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
		60-80	Fine sandy loam, sandy loam	SC, SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
Gotham----------	5	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
		9-18	Loamy fine sand, loamy sand	SP-SM, SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	12-50	0-14	NP
		18-40	Sand, loamy fine sand, loamy sand	SP-SM, SM, SP	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
		40-80	Fine sand, loamy sand, sand	SP-SM, SP	A-2, A-3, A-1	0	0	95-100	75-100	40-80	1-35	0-14	NP
L58E:													
Koronis---------	55	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay loam, loam, fine sandy loam	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
		30-60	Sandy loam, fine sandy loam, loam	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
Kingsley--------	25	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L58E:													
Forestcity------	15	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-36	Loam, sandy clay loam	SC	A-6	0-4	2-5	95-98	90-95	75-90	45-75	25-40	10-15
		36-60	Loam, sandy clay loam, clay loam	SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
		60-80	Fine sandy loam, sandy loam	SC, SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
Gotham----------	5	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
		9-18	Loamy fine sand, loamy sand	SP-SM, SM	A-1, A-2, A-4	0	0	95-100	75-100	40-95	12-50	0-14	NP
		18-40	Sand, loamy fine sand, loamy sand	SP-SM, SM, SP	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
		40-80	Fine sand, loamy sand, sand	SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-80	1-35	0-14	NP
L59A:													
Forestcity------	70	0-22	Fine sandy loam	SM, SC-SM	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-43	Loam, sandy clay loam, clay loam	CL	A-6	0-4	2-5	95-98	90-95	75-90	50-75	25-40	10-15
		43-60	Loam, sandy clay loam, clay loam	SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
		60-80	Fine sandy loam, sandy loam	SC, SC-SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	4-8
Lundlake, depressional---	25	0-20	Loam	CL	A-6	0-1	1-3	95-99	90-95	65-90	50-80	30-36	11-15
		20-46	Loam, clay loam, silty clay loam	SC, CL	A-6	0-1	1-3	95-99	90-95	65-90	45-80	30-39	11-18
		46-54	Loam, sandy clay loam, sandy loam	SC, CL	A-4, A-6	0-1	3-5	90-95	85-95	60-85	45-60	28-36	9-15
		54-60	Sandy loam, fine sandy loam, loam	SC, SC-SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	21-26	4-8

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L59A:													
Marcellon-------	5	0-13	Loam	CL	A-4, A-6	0	0-5	85-100	75-100	55-95	45-80	20-30	6-11
		13-32	Loam, clay loam, sandy clay loam	SC, CL	A-2, A-6	0	0-9	85-100	75-95	60-95	25-80	30-35	11-14
		32-60	Loam, sandy loam, gravelly sandy loam	SC-SM, SC	A-2, A-4, A-1-b	0	0-9	55-100	50-95	30-90	15-75	20-30	4-11
L60B:													
Angus----------	65	0-8	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
		35-40	Loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Moon----------	30	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-46	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		46-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
Hamel----------	5	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L61C2:													
Lester, eroded--	60	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L61C2:													
Metea, eroded---	25	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-46	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		46-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
Terril----------	12	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	3	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L61D2:													
Lester, eroded--	55	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Metea, eroded---	25	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-46	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		46-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L61D2:													
Terril----------	12	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	5	0-23	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		23-38	Loam, clay loam	CL, CL-ML	A-6, A-7	0	0-3	95-100	90-100	70-90	60-80	25-45	5-20
		38-50	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	3	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L61E:													
Lester----------	55	0-5	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Metea----------	25	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-46	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		46-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
Terril----------	10	0-24	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		37-57	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	5	0-22	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		22-41	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		41-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L61E:													
Ridgeton--------	5	0-32	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
L62B:													
Koronis---------	55	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay loam, loam, fine sandy loam	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
		30-60	Sandy loam, fine sandy loam, loam	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
Kingsley--------	20	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
Malardi---------	20	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		14-21	Coarse sand, loamy coarse sand, gravelly coarse sand, gravelly loamy coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		21-80	Sand, coarse sand, gravelly sand	GP, SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L62B:													
Forestcity------	5	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-36	Loam, sandy clay loam	SC	A-6	0-4	2-5	95-98	90-95	75-90	45-75	25-40	10-15
		36-60	Loam, sandy clay loam, clay loam	SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
		60-80	Fine sandy loam, sandy loam	SC, SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
L62C2:													
Koronis, eroded	40	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay loam, loam, fine sandy loam	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
		30-60	Sandy loam, fine sandy loam, loam	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
Kingsley, eroded	25	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
Malardi, eroded	25	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		14-21	Coarse sand, loamy coarse sand, gravelly coarse sand, gravelly loamy coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		21-80	Sand, coarse sand, gravelly sand	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L62C2:													
Forestcity------	10	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-36	Loam, sandy clay loam	SC	A-6	0-4	2-5	95-98	90-95	75-90	45-75	25-40	10-15
		36-60	Loam, sandy clay loam, clay loam	SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
		60-80	Fine sandy loam, sandy loam	SM, SC	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
L62D2:													
Koronis, eroded	40	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay loam, loam, fine sandy loam	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
		30-60	Sandy loam, fine sandy loam, loam	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
Kingsley, eroded	25	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
Malardi, eroded	25	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		14-21	Coarse sand, loamy coarse sand, gravelly coarse sand, gravelly loamy coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		21-80	Sand, coarse sand, gravelly sand	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L62D2:													
Forestcity------	10	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-36	Loam, sandy clay loam	SC	A-6	0-4	2-5	95-98	90-95	75-90	45-75	30-40	10-15
		36-60	Loam, sandy clay loam, clay loam	SC, CL	A-4, A-6	0-4	3-6	95-98	85-95	60-90	35-70	20-40	5-15
		60-80	Fine sandy loam, sandy loam	SC, SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
L62E:													
Koronis---------	40	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay loam, loam, fine sandy loam	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
		30-60	Sandy loam, fine sandy loam, loam	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
Kingsley--------	25	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam, fine sandy loam, loamy sand	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
		14-34	Sandy loam, coarse sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
		34-60	Sandy loam, coarse sandy loam	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
Malardi---------	25	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		14-21	Coarse sand, loamy coarse sand, gravelly coarse sand, gravelly loamy coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		21-80	Sand, coarse sand, gravelly sand	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L62E:													
Forestcity------	10	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-36	Loam, sandy clay loam	SC	A-6	0-4	2-5	95-98	90-95	75-90	45-75	30-40	10-15
		36-60	Loam, sandy clay loam, clay loam	SC, CL	A-4, A-6	0-4	3-6	95-98	85-95	60-90	35-70	20-40	5-15
		60-80	Fine sandy loam, sandy loam	SC, SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
L64A:													
Tadkee----------	50	0-6	Loamy fine sand	SM, SP-SM	A-2	0	0	100	95-100	50-80	4-35	0-14	NP-4
		6-34	Sand, fine sand, loamy sand	SW, SP, SP-SM	A-1, A-2, A-3	0	0	100	75-100	45-80	4-35	0-14	NP
		34-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Tadkee, depressional---	36	0-6	Mucky loamy fine sand	SP-SM, SM	A-2	0	0	100	95-100	50-80	4-35	0-14	NP-4
		6-27	Sand, fine sand, loamy sand	SW, SP, SP-SM	A-1, A-2, A-3	0	0	100	75-100	45-80	4-35	0-14	NP
		27-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Better drained soil----------	8	0-6	Loamy sand	SM	A-2	0	0-1	98-100	95-100	70-90	15-35	5-15	NP-2
		6-25	Sand, fine sand, loamy sand	SP-SM, SP	A-2	0	0-1	98-100	95-100	65-90	4-25	5-15	NP-2
		25-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Granby----------	4	0-12	Loamy fine sand	SM	A-2	0	0	100	100	50-80	15-35	0-14	NP
		12-24	Sand, loamy fine sand, loamy sand	SM, SP-SM	A-3, A-1, A-2	0	0	100	95-100	45-80	5-35	0-14	NP
		24-60	Coarse sand, fine sand, loamy fine sand	SP-SM, SM	A-1, A-2, A-3	0	0	100	95-100	45-80	5-35	0-14	NP
Less sandy soil	2	0-4	Loamy fine sand	SM, SP-SM	A-2	0	0	100	95-100	50-80	4-35	0-14	NP-4
		4-20	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		20-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L70C2:													
Lester, eroded--	60	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Malardi, eroded	25	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		15-29	Coarse sand, loamy coarse sand, gravelly coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		29-80	Sand, coarse sand, gravelly sand	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Terril----------	12	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	3	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L70D2:													
Lester, eroded--	55	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L70D2:													
Malardi, eroded	25	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		14-21	Coarse sand, loamy coarse sand, gravelly coarse sand, gravelly loamy coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		21-80	Sand, coarse sand, gravelly sand	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Terril----------	12	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	5	0-23	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		23-38	Loam, clay loam	CL, CL-ML	A-6, A-7	0	0-3	95-100	90-100	70-90	60-80	25-45	5-20
		38-50	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	3	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L70E:													
Lester----------	55	0-5	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L70E:													
Malardi---------	25	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
		14-21	Coarse sand, loamy coarse sand, gravelly coarse sand, gravelly loamy coarse sand	SC-SM, SM, SP-SM	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		21-80	Sand, coarse sand, gravelly sand	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
Terril----------	10	0-24	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		37-57	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	5	0-22	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		22-41	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		41-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	5	0-32	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
L71C:													
Metea----------	80	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-46	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		46-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L71C:													
Lester----------	15	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Moon----------	5	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SM, SP-SM	A-2	0	0	100	90-100	65-90	10-20	0-20	NP-4
		24-46	Sandy clay loam, fine sandy loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		46-60	Sandy clay loam, loam, clay loam	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
L72A:													
Lundlake, depressional---	90	0-20	Loam	CL	A-6	0-1	1-3	95-99	90-95	65-90	50-80	30-36	11-15
		20-46	Loam, clay loam, silty clay loam	SC, CL	A-6	0-1	1-3	95-99	90-95	65-90	45-80	30-39	11-18
		46-54	Loam, sandy clay loam, sandy loam	SC, CL	A-4, A-6	0-1	3-5	90-95	85-95	60-85	45-60	28-36	9-15
		54-60	Sandy loam, fine sandy loam, loam	SC, SC-SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	21-26	4-8
Forestcity------	10	0-22	Fine sandy loam	SM, SC-SM	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
		22-43	Loam, sandy clay loam, clay loam	CL	A-6	0-4	2-5	95-98	90-95	75-90	50-75	30-40	10-15
		43-60	Loam, sandy clay loam, clay loam	SC, CL	A-4, A-6	0-4	3-6	95-98	85-95	60-90	35-70	20-40	5-15
		60-80	Fine sandy loam, sandy loam	SC, SC-SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	4-8

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L110E:													
Lester----------	50	0-5	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	30	0-32	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
Cokato----------	10	0-16	Loam	CL	A-6	0	0-2	95-100	90-98	80-95	60-70	32-36	13-15
		16-30	Clay loam, loam, sandy clay loam	CL	A-6, A-7	0	0-5	95-100	90-98	80-95	65-80	34-43	14-21
		30-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Belview---------	6	0-9	Loam	CL	A-6	0	0-5	95-100	95-98	75-95	60-75	28-36	9-15
		9-50	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		50-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	2	0-22	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		22-41	Clay loam, loam, silty clay loam	CH, CL	A-6	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		41-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	2	0-24	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		37-57	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L110F:													
Lester----------	55	0-6	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		6-25	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		25-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton--------	30	0-32	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
Cokato----------	8	0-16	Loam	CL	A-6	0	0-2	95-100	90-98	80-95	60-70	32-36	13-15
		16-30	Clay loam, loam, sandy clay loam	CL	A-6, A-7	0	0-5	95-100	90-98	80-95	65-80	34-43	14-21
		30-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
L110F:													
Belview---------	4	0-9	Loam	CL	A-6	0	0-5	95-100	95-98	75-95	60-75	28-36	9-15
		9-50	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		50-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	2	0-24	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		37-57	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel----------	1	0-22	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		22-41	Clay loam, loam, silty clay loam	CH, CL	A-6, A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		41-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L131A:													
Litchfield------	85	0-20	Loamy fine sand	SM	A-2	0	0	100	100	80-95	15-35	15-20	NP-4
		20-33	Fine sand	SM	A-2	0	0	100	100	80-95	20-35	15-20	NP-4
		33-40	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	90-100	80-95	0-25	NP-5
		40-80	Loamy fine sand, loamy sand, sand	SM	A-2, A-3	0	0	100	100	70-95	5-30	15-20	NP-4
Darfur----------	10	0-16	Sandy loam	SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-5
		16-32	Fine sandy loam, sandy clay loam, loamy fine sand	SC-SM, SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-7
		32-80	Stratified sand to loamy fine sand to fine sandy loam	SM	A-2, A-4	0	0	100	100	50-100	15-40	0-20	NP
Crowfork--------	5	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-20	Fine sand, loamy fine sand, loamy sand	SP-SM, SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
		20-76	Fine sand, loamy sand, sand	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
		76-80	Sand, coarse sand	SP	A-1, A-2	0	0	95-100	75-100	40-75	0-15	0-20	NP

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
		In				Pct	Pct					Pct	
L132A:													
Hamel----------	50	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Glencoe, depressional---	30	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
		13-31	Silty clay loam, clay loam, loam	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		31-45	Loam, clay loam, silty clay loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-50	10-25
		45-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	10-20
Hamel, overwash	15	0-13	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		13-29	Loam, clay loam	ML, CL	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
		29-50	Clay loam, loam, silty clay loam	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
		50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril----------	5	0-27	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
M-W.													
Water, miscellaneous													
U1A.													
Urban land-Udorthents, wet substratum													
U2A.													
Udorthents, wet substratum													
U3B.													
Udorthents (cut and fill land)													

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	Pct. of map unit	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
		In				Pct	Pct					Pct	
U4A. Urban land-Udipsamments (cut and fill land)													
U5A. Urban land-Udorthents, wet substratum													
U6B. Urban land-Udorthents (cut and fill land)													
W. Water													

Table 18.--Physical Properties of the Soils

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated)

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D1B:													
Anoka, terrace--------	55	0-10	2-10	1.40-1.60	2-20	0.13-0.16	0.0-2.9	0.5-3.0	.17	.17	5	2	134
		10-60	1-10	1.45-1.75	2-20	0.06-0.12	0.0-2.9	0.0-0.5	.15	.15			
Zimmerman, terrace----	40	0-9	2-6	1.45-1.65	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.17	.17	5	1	220
		9-60	1-10	1.50-1.70	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15			
Kost----------	5	0-14	3-10	1.20-1.40	6-20	0.09-0.12	0.0-2.9	2.0-5.0	.17	.17	5	2	134
		14-33	0-5	1.40-1.60	6-20	0.06-0.08	0.0-2.9	0.5-1.0	.15	.15			
		33-60	0-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
D1C:													
Anoka, terrace--------	45	0-10	2-10	1.40-1.60	2-20	0.13-0.16	0.0-2.9	0.5-3.0	.17	.17	5	2	134
		10-60	1-10	1.45-1.75	2-20	0.06-0.12	0.0-2.9	0.0-0.5	.15	.15			
Zimmerman, terrace----	45	0-9	2-6	1.45-1.65	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.17	.17	5	1	220
		9-60	1-10	1.50-1.70	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15			
Kost----------	10	0-14	3-10	1.20-1.40	6-20	0.09-0.12	0.0-2.9	2.0-5.0	.17	.17	5	2	134
		14-33	0-5	1.40-1.60	6-20	0.06-0.08	0.0-2.9	0.5-1.0	.15	.15			
		33-60	0-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
D2A:													
Elkriver, rarely flooded----------	85	0-10	5-18	1.45-1.55	0.6-6	0.16-0.20	0.0-2.9	3.0-10	.17	.17	4	3	86
		10-35	5-18	1.45-1.55	0.6-6	0.15-0.20	0.0-2.9	3.0-10	.17	.17			
		35-39	5-18	1.45-1.55	0.6-6	0.15-0.19	0.0-2.9	0.5-2.0	.15	.15			
		39-80	1-10	1.60-1.70	6-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
Mosford, rarely flooded----------	10	0-11	7-18	1.50-1.70	2-6	0.13-0.18	0.0-2.9	2.0-10	.17	.17	3	3	86
		11-16	7-18	1.45-1.60	2-6	0.09-0.17	0.0-2.9	0.5-2.0	.24	.24			
		16-57	2-4	1.45-1.60	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
		57-80	2-4	1.45-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
Elkriver, occasionally flooded----------	5	0-10	5-18	1.45-1.55	0.6-6	0.16-0.20	0.0-2.9	3.0-10	.17	.17	4	3	86
		10-26	5-18	1.45-1.55	0.6-6	0.15-0.20	0.0-2.9	3.0-10	.17	.17			
		26-32	5-18	1.45-1.55	0.6-6	0.15-0.19	0.0-2.9	0.5-2.0	.15	.15			
		32-80	1-10	1.60-1.70	6-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D3A:													
Elkriver, occasionally flooded----------	80	0-10	5-18	1.45-1.55	0.6-6	0.16-0.20	0.0-2.9	3.0-10	.17	.17	4	3	86
		10-26	5-18	1.45-1.55	0.6-6	0.15-0.20	0.0-2.9	3.0-10	.17	.17			
		26-32	5-18	1.45-1.55	0.6-6	0.15-0.19	0.0-2.9	0.5-2.0	.15	.15			
		32-80	1-10	1.60-1.70	6-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
Fordum, frequently flooded----------	15	0-7	5-12	1.35-1.50	0.6-6	0.11-0.18	0.0-2.9	4.0-14	.17	.17	4	3	86
		7-28	1-8	1.40-1.50	0.6-6	0.10-0.22	0.0-2.9	1.0-10	.20	.20			
		28-80	1-5	1.55-1.70	6-20	0.04-0.10	0.0-2.9	0.5-2.0	.15	.15			
Winterfield, occasionally flooded	5	0-8	0-10	1.40-1.50	2-20	0.10-0.12	0.0-2.9	2.0-7.0	.05	.05	5	2	134
		8-20	0-5	1.45-1.60	6-20	0.06-0.11	0.0-2.9	0.0-1.0	.17	.17			
		20-80	0-5	1.55-1.65	6-20	0.04-0.10	0.0-2.9	0.0-0.5	.10	.17			
D4A:													
Dorset----------	90	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	4	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Verndale, acid substratum----------	8	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			
Almora----------	2	0-10	12-20	1.30-1.55	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	4	5	56
		10-14	12-20	1.30-1.55	0.6-2	0.12-0.19	0.0-2.9	1.0-2.0	.28	.28			
		14-36	16-22	1.30-1.55	0.6-2	0.14-0.19	2.0-5.9	0.5-1.0	.32	.32			
		36-41	3-12	1.55-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.15			
		41-80	1-4	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
D4B:													
Dorset----------	85	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	4	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D4B:													
Verndale, acid substratum----------	10	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			
Almora----------	5	0-10	12-20	1.30-1.55	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	4	5	56
		10-14	12-20	1.30-1.55	0.6-2	0.12-0.19	0.0-2.9	1.0-2.0	.28	.28			
		14-36	16-22	1.30-1.55	0.6-2	0.14-0.19	2.0-5.9	0.5-1.0	.32	.32			
		36-41	3-12	1.55-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.15			
		41-80	1-4	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
D4C:													
Dorset----------	75	0-11	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-5.0	.20	.20	3	3	86
		11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Verndale, acid substratum----------	15	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			
Almora----------	10	0-10	12-20	1.30-1.55	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	4	5	56
		10-14	12-20	1.30-1.55	0.6-2	0.12-0.19	0.0-2.9	1.0-2.0	.28	.28			
		14-36	16-22	1.30-1.55	0.6-2	0.14-0.19	2.0-5.9	0.5-1.0	.32	.32			
		36-41	3-12	1.55-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.15			
		41-80	1-4	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
D5B:													
Dorset----------	65	0-11	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	3	3	86
		11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Two Inlets----------	25	0-9	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.15	.15	5	2	134
		9-19	5-15	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.10	.15			
		19-80	0-3	1.60-1.80	20-40	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Verndale, acid substratum----------	5	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D5B:													
Southhaven----------	5	0-48	16-27	1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	5	6	48
		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
		62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	.17	.17			
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
D5C:													
Dorset----------	55	0-11	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-5.0	.20	.20	3	3	86
		11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Two Inlets----------	30	0-9	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.15	.15	5	2	134
		9-19	5-15	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.10	.15			
		19-80	0-3	1.60-1.80	20-40	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Southhaven----------	10	0-48	16-27	1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	5	6	48
		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
		62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	.17	.17			
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Verndale, acid substratum----------	5	0-10	7-12	1.30-1.75	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			
D5D:													
Dorset----------	50	0-9	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		14-25	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		25-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Two Inlets----------	35	0-9	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.15	.15	5	2	134
		9-19	5-15	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.10	.15			
		19-80	0-3	1.60-1.80	20-40	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Southhaven----------	10	0-48	16-27	1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	5	6	48
		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
		62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	.17	.17			
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D5D:													
Verndale, acid substratum----------	5	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			
D6A:													
Verndale, acid substratum----------	90	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.55-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			
Dorset----------	7	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	4	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Hubbard----------	3	0-20	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		20-32	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		32-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
D6B:													
Verndale, acid substratum----------	85	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			
Dorset----------	10	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	4	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Hubbard----------	5	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		23-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
D6C:													
Verndale, acid substratum----------	80	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D6C:													
Dorset----------	15	0-11	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-5.0	.20	.20	3	3	86
		11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Hubbard----------	5	0-12	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		12-33	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		33-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
D7A:													
Hubbard----------	95	0-20	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		20-32	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		32-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
Mosford----------	5	0-13	7-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		13-16	7-18	1.50-1.60	2-6	0.12-0.17	0.0-2.9	0.5-2.0	.24	.24			
		16-35	2-6	1.55-1.70	6-20	0.03-0.11	0.0-2.9	0.0-0.5	.15	.15			
		35-80	2-4	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
D7B:													
Hubbard----------	90	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		23-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
Mosford----------	10	0-13	7-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		13-16	7-18	1.50-1.60	2-6	0.12-0.17	0.0-2.9	0.5-2.0	.24	.24			
		16-35	2-6	1.55-1.70	6-20	0.03-0.11	0.0-2.9	0.0-0.5	.15	.15			
		35-80	2-4	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
D7C:													
Hubbard----------	80	0-12	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		12-33	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		33-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
Sandberg----------	10	0-14	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	5	2	134
		14-32	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.5-1.0	.05	.10			
		32-80	0-5	1.50-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.05	.10			
Mosford----------	10	0-13	7-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		13-16	7-18	1.50-1.60	2-6	0.12-0.17	0.0-2.9	0.5-2.0	.24	.24			
		16-35	2-6	1.55-1.70	6-20	0.03-0.11	0.0-2.9	0.0-0.5	.15	.15			
		35-80	2-4	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D8B:													
Sandberg----------	95	0-14	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	5	2	134
		14-32	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.5-1.0	.05	.10			
		32-80	0-5	1.50-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.05	.10			
Arvilla, MAP >25------	5	0-14	6-18	1.40-1.60	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		14-17	6-18	1.45-1.60	2-6	0.11-0.14	0.0-2.9	1.0-2.0	.20	.20			
		17-80	2-10	1.60-1.80	6-20	0.02-0.05	0.0-2.9	0.0-0.5	.10	.20			
D8C:													
Sandberg----------	80	0-14	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	5	2	134
		14-32	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.5-1.0	.05	.10			
		32-80	0-5	1.50-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.05	.10			
Corliss----------	15	0-7	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-4.0	.15	.15	5	2	134
		7-28	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.15			
		28-80	0-5	1.50-1.65	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			
Southhaven----------	5	0-48	16-27	1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	5	6	48
		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
		62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	.17	.17			
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
D8D:													
Sandberg----------	80	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	5	2	134
		11-27	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.5-1.0	.05	.10			
		27-80	0-5	1.50-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.05	.10			
Corliss----------	10	0-7	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-4.0	.15	.15	5	2	134
		7-28	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.15			
		28-80	0-5	1.50-1.65	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			
Southhaven----------	10	0-48	16-27	1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	5	6	48
		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
		62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	.17	.17			
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
D8E:													
Sandberg----------	80	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	5	2	134
		11-27	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.5-1.0	.05	.10			
		27-80	0-5	1.50-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.05	.10			
Corliss----------	10	0-7	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-4.0	.15	.15	5	2	134
		7-28	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.15			
		28-80	0-5	1.50-1.65	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D8E:													
Southhaven----------	10	0-48	16-27	1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	5	6	48
		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
		62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	.17	.17			
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
D10A:													
Forada----------	95	0-10	13-20	1.30-1.50	0.6-6	0.15-0.17	0.0-2.9	3.0-6.0	.20	.20	4	3	86
		10-33	13-18	1.35-1.50	2-6	0.15-0.17	0.0-2.9	0.5-1.0	.20	.20			
		33-60	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
Depressional soil-----	5	0-19	13-20	1.30-1.50	0.6-6	0.15-0.17	0.0-2.9	3.0-6.0	.20	.20	4	3	86
		19-38	13-18	1.35-1.50	2-6	0.15-0.17	0.0-2.9	0.5-1.0	.20	.20			
		38-60	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D11A:													
Lindaas----------	80	0-16	20-27	1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	5	6	48
		16-32	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32			
		32-80	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32			
Lindaas, sandy substratum----------	10	0-14	20-27	1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	4	6	48
		14-20	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32			
		20-62	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32			
		62-80	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Depressional soil-----	10	0-23	20-27	1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	5	6	48
		23-30	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32			
		30-80	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32			
D12B:													
Bygland, MAP >25------	70	0-9	18-26	1.20-1.40	0.2-2	0.22-0.24	3.0-5.9	3.0-7.0	.28	.28	5	6	48
		9-23	35-60	1.20-1.40	0.06-0.6	0.10-0.19	6.0-8.9	0.5-3.0	.32	.32			
		23-27	18-45	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.5-1.0	.43	.43			
		27-80	18-40	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43			
Bygland, sandy substratum----------	15	0-14	18-26	1.20-1.40	0.2-2	0.22-0.24	3.0-5.9	3.0-7.0	.28	.28	4	6	48
		14-26	35-60	1.20-1.40	0.06-0.6	0.10-0.19	6.0-8.9	0.5-3.0	.32	.32			
		26-38	18-45	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.5-1.0	.43	.43			
		38-63	18-40	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43			
		63-80	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Lindaas----------	10	0-16	20-27	1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	5	6	48
		16-32	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32			
		32-80	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D12B:													
Depressional soil-----	5	0-23	20-27	1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	5	6	48
		23-30	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32			
		30-80	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32			
D12C2:													
Bygland, MAP >25------	70	0-7	18-26	1.20-1.40	0.2-2	0.22-0.24	3.0-5.9	1.0-2.0	.28	.28	5	6	48
		7-20	35-60	1.20-1.40	0.06-0.6	0.10-0.19	6.0-8.9	0.5-3.0	.32	.32			
		20-26	18-45	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.5-1.0	.43	.43			
		26-80	18-40	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43			
Bygland, sandy substratum----------	15	0-14	18-26	1.20-1.40	0.2-2	0.22-0.24	3.0-5.9	3.0-7.0	.28	.28	4	6	48
		14-26	35-60	1.20-1.40	0.06-0.6	0.10-0.19	6.0-8.9	0.5-3.0	.32	.32			
		26-38	18-45	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.5-1.0	.43	.43			
		38-63	18-40	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43			
		63-80	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Lindaas----------	10	0-16	20-27	1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	5	6	48
		16-32	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32			
		32-80	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32			
Depressional soil-----	5	0-23	20-27	1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	5	6	48
		23-30	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32			
		30-80	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32			
D13A:													
Langola, terrace------	85	0-15	2-10	1.40-1.55	6-20	0.10-0.12	0.0-2.9	1.0-4.0	.17	.17	4	2	134
		15-31	2-8	1.50-1.70	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.15	.15			
		31-39	10-18	1.55-1.80	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.28	.28			
		39-43	5-16	1.75-1.90	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.5	.28	.28			
		43-60	5-16	1.80-2.00	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.5	.28	.28			
Duelm----------	10	0-16	2-10	1.40-1.60	6-20	0.08-0.12	0.0-2.9	2.0-6.0	.17	.17	5	2	134
		16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
		30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Hubbard----------	5	0-20	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		20-32	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		32-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D13B:													
Langola, terrace------	85	0-15	2-10	1.40-1.55	6-20	0.10-0.12	0.0-2.9	1.0-4.0	.17	.17	4	2	134
		15-31	2-8	1.50-1.70	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.15	.15			
		31-39	10-18	1.55-1.80	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.28	.28			
		39-43	5-16	1.75-1.90	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.5	.28	.28			
		43-60	5-16	1.80-2.00	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.5	.28	.28			
Hubbard----------	10	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		23-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
Duelm----------	5	0-16	2-10	1.40-1.60	6-20	0.08-0.12	0.0-2.9	2.0-6.0	.17	.17	5	2	134
		16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
		30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
D15A:													
Seelyeville, drained--	65	0-10	---	0.10-0.25	0.2-6	0.35-0.45	---	67-90	---	---	3	2	134
		10-60	---	0.10-0.25	0.2-6	0.35-0.45	---	67-90	---	---			
Markey, drained-------	25	0-28	---	0.15-0.45	0.2-6	0.35-0.45	---	67-90	---	---	2	2	134
		28-32	0-10	1.40-1.65	6-20	0.03-0.08	0.0-2.9	1.0-4.0	.15	.15			
		32-80	0-10	1.40-1.65	6-20	0.03-0.08	0.0-2.9	0.0-0.5	.15	.15			
Mineral soil, drained	10	0-18	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-14	.15	.15	3	3	86
		18-29	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		29-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D16A:													
Seelyeville, ponded---	45	0-15	---	0.10-0.25	0.2-6	0.35-0.45	---	67-90	---	---	3	8	0
		15-80	---	0.10-0.25	0.2-6	0.35-0.45	---	67-90	---	---			
Markey, ponded--------	45	0-27	---	0.15-0.45	0.2-6	0.35-0.45	---	67-90	---	---	2	8	0
		27-32	0-10	1.40-1.65	6-20	0.03-0.08	0.0-2.9	1.0-4.0	.15	.15			
		32-80	0-10	1.40-1.65	6-20	0.03-0.08	0.0-2.9	0.0-0.5	.15	.15			
Mineral soil, ponded--	10	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-14	.15	.15	3	8	0
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D17A:													
Duelm----------	90	0-16	2-10	1.40-1.60	6-20	0.08-0.12	0.0-2.9	2.0-6.0	.17	.17	5	2	134
		16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
		30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D17A:													
Isan	8	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
Hubbard	2	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		23-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
D18B:													
Braham, terrace	85	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-42	18-30	1.50-1.70	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		42-60	16-30	1.55-1.75	0.6-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
Duelm	15	0-16	2-10	1.40-1.60	6-20	0.08-0.12	0.0-2.9	2.0-6.0	.17	.17	5	2	134
		16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
		30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
D19A:													
Fordum, frequently flooded	65	0-7	5-12	1.35-1.50	0.6-6	0.11-0.18	0.0-2.9	4.0-14	.17	.17	4	8	0
		7-28	1-10	1.40-1.50	0.6-6	0.10-0.22	0.0-2.9	1.0-10	.20	.20			
		28-80	1-5	1.55-1.70	6-20	0.04-0.10	0.0-2.9	0.5-2.0	.15	.15			
Winterfield, frequently flooded	25	0-8	0-10	1.40-1.50	2-20	0.10-0.12	0.0-2.9	2.0-7.0	.05	.05	5	8	0
		8-20	0-5	1.45-1.60	6-20	0.06-0.11	0.0-2.9	0.0-1.0	.17	.17			
		20-80	0-5	1.55-1.65	6-20	0.04-0.10	0.0-2.9	0.0-0.5	.10	.17			
Fordum, occasionally flooded	10	0-9	10-23	1.35-1.45	0.6-2	0.17-0.24	0.0-2.9	3.0-10	.17	.17	4	8	0
		9-38	8-17	1.40-1.50	0.6-2	0.10-0.22	0.0-2.9	0.5-3.0	.20	.20			
		38-80	2-5	1.55-1.70	6-20	0.04-0.16	0.0-2.9	0.5-1.0	.15	.15			
D20A:													
Isan	85	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
Isan, depressional	10	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D20A:													
Duelm----------	5	0-16	2-10	1.40-1.60	6-20	0.08-0.12	0.0-2.9	2.0-6.0	.17	.17	5	2	134
		16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
		30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
D21A:													
Isan, depressional----	85	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
Isan----------	15	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D23A:													
Southhaven----------	90	0-48	16-27	1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	5	6	48
		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
		62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	.17	.17			
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Dorset----------	5	0-11	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	3	3	86
		11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Mosford----------	5	0-13	7-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		13-16	7-18	1.50-1.60	2-6	0.12-0.17	0.0-2.9	0.5-2.0	.24	.24			
		16-35	2-6	1.55-1.70	6-20	0.03-0.11	0.0-2.9	0.0-0.5	.15	.15			
		35-80	2-4	1.55-1.67	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
D24A:													
Sedgeville, occasionally flooded	85	0-15	0-23	1.35-1.45	0.6-2	0.17-0.24	0.0-2.9	4.0-10	.28	.28	4	5	56
		15-45	8-17	1.40-1.50	0.6-2	0.10-0.22	0.0-2.9	0.0-3.0	.32	.43			
		45-80	2-5	1.55-1.70	6-40	0.04-0.16	0.0-2.9	0.0-0.5	.10	.15			
Elkriver, occasionally flooded----------	15	0-10	5-18	1.45-1.55	0.6-6	0.16-0.20	0.0-2.9	3.0-10	.17	.17	4	3	86
		10-26	5-18	1.45-1.55	0.6-6	0.15-0.20	0.0-2.9	3.0-10	.17	.17			
		26-32	5-18	1.45-1.55	0.6-6	0.15-0.19	0.0-2.9	0.5-2.0	.15	.15			
		32-80	1-10	1.60-1.70	6-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D25A:													
Soderville, terrace---	90	0-9	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	5	2	134
		9-24	1-10	1.45-1.70	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.15	.15			
		24-31	5-12	1.45-1.75	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
		31-60	1-5	1.45-1.75	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
Forada----------	10	0-10	13-20	1.30-1.50	0.6-6	0.15-0.17	0.0-2.9	3.0-6.0	.20	.20	4	3	86
		10-33	13-18	1.35-1.50	2-6	0.15-0.17	0.0-2.9	0.5-1.0	.20	.20			
		33-60	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D26A:													
Foldahl, MAP >25------	90	0-16	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	2.0-4.0	.17	.17	5	2	134
		16-31	1-8	1.55-1.65	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		31-40	10-25	1.65-1.75	0.6-2	0.15-0.17	0.0-2.9	0.0-0.5	.32	.32			
		40-60	12-25	1.65-1.75	0.6-2	0.15-0.17	0.0-2.9	0.0-0.5	.32	.32			
Hubbard----------	5	0-20	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		20-32	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		32-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
Isan----------	5	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D27A:													
Dorset, loamy substratum----------	80	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	4	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-60	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		60-80	10-20	1.45-1.65	0.6-2	0.10-0.16	0.0-2.9	0.0-0.5	.32	.32			
Dorset----------	15	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	4	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Southhaven----------	5	0-48	16-27	1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	5	6	48
		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
		62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	.17	.17			
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D28B:													
Urban land----------	75	---	---	---	---	---	---	---	---	---	-	---	---
Bygland, MAP >25------	20	0-9	18-26	1.20-1.40	0.2-2	0.22-0.24	3.0-5.9	3.0-7.0	.28	.28	5	6	48
		9-23	35-60	1.20-1.40	0.06-0.6	0.10-0.19	6.0-8.9	0.5-3.0	.32	.32			
		23-27	18-45	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.5-1.0	.43	.43			
		27-80	18-40	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43			
Bygland, sandy substratum----------	5	0-14	18-26	1.20-1.40	0.2-2	0.22-0.24	3.0-5.9	3.0-7.0	.28	.28	4	6	48
		14-26	35-60	1.20-1.40	0.06-0.6	0.10-0.19	6.0-8.9	0.5-3.0	.32	.32			
		26-38	18-45	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.5-1.0	.43	.43			
		38-63	18-40	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43			
		63-80	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
D29B:													
Urban land----------	70	---	---	---	---	---	---	---	---	---	-	---	---
Hubbard, bedrock substratum----------	20	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	4	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		23-60	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		60-80	---	---	---	---	---	---	---	---			
Hubbard----------	5	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		23-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
Mosford----------	5	0-13	7-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		13-16	7-18	1.50-1.60	2-6	0.12-0.17	0.0-2.9	0.5-2.0	.24	.24			
		16-35	2-6	1.55-1.70	6-20	0.03-0.11	0.0-2.9	0.0-0.5	.15	.15			
		35-80	2-4	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
D30A:													
Seelyeville, surface drained----------	45	0-10	---	0.10-0.25	0.2-6	0.35-0.45	---	67-90	---	---	3	2	134
		10-80	---	0.10-0.25	0.2-6	0.35-0.45	---	67-90	---	---			
Markey, surface drained----------	45	0-36	---	0.15-0.45	0.2-6	0.35-0.45	---	67-90	---	---	2	2	134
		36-42	0-10	1.40-1.65	6-20	0.03-0.08	0.0-2.9	1.0-4.0	.15	.15			
		42-80	0-10	1.40-1.65	6-20	0.03-0.08	0.0-2.9	0.0-0.5	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D30A:													
Mineral soil, surface drained	10	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-14	.15	.15	3	3	86
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D31A:													
Urban land	70	---	---	---	---	---	---	---	---	---	-	---	---
Duelm	20	0-16	2-10	1.40-1.60	6-20	0.08-0.12	0.0-2.9	2.0-6.0	.17	.17	5	2	134
		16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
		30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Hubbard	5	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		23-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
Isan	5	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D33B:													
Urban land	70	---	---	---	---	---	---	---	---	---	-	---	---
Dorset	20	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	4	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Verndale, acid substratum	5	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			
Hubbard	5	0-20	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		20-32	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		32-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
D33C:													
Urban land	70	---	---	---	---	---	---	---	---	---	-	---	---
Dorset	20	0-11	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-5.0	.20	.20	3	3	86
		11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D33C:													
Verndale, acid substratum----------	5	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			
Hubbard----------	5	0-12	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		12-33	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		33-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
D34B:													
Urban land----------	75	---	---	---	---	---	---	---	---	---	-	---	---
Hubbard----------	20	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		23-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
Mosford----------	5	0-13	7-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		13-16	7-18	1.50-1.60	2-6	0.12-0.17	0.0-2.9	0.5-2.0	.24	.24			
		16-35	2-6	1.55-1.70	6-20	0.03-0.11	0.0-2.9	0.0-0.5	.15	.15			
		35-80	2-4	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
D35A:													
Elkriver, occasionally flooded----------	70	0-10	5-18	1.45-1.55	0.6-6	0.16-0.20	0.0-2.9	3.0-10	.17	.17	4	3	86
		10-26	5-18	1.45-1.55	0.6-6	0.15-0.20	0.0-2.9	3.0-10	.17	.17			
		26-32	5-18	1.45-1.55	0.6-6	0.15-0.19	0.0-2.9	0.5-2.0	.15	.15			
		32-80	1-10	1.60-1.70	6-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
Fordum, occasionally flooded----------	20	0-7	5-12	1.35-1.50	0.6-6	0.11-0.18	0.0-2.9	3.0-10	.17	.17	4	3	86
		7-28	1-10	1.40-1.50	0.6-6	0.10-0.22	0.0-2.9	1.0-10	.20	.20			
		28-80	1-5	1.55-1.70	6-20	0.04-0.10	0.0-2.9	0.5-2.0	.15	.15			
Udipsamments----------	5	---	---	---	---	---	---	---	---	---	-	---	---
Winterfield, occasionally flooded	5	0-8	0-10	1.40-1.50	2-20	0.10-0.12	0.0-2.9	2.0-7.0	.05	.05	5	2	134
		8-20	0-5	1.45-1.60	6-20	0.06-0.11	0.0-2.9	0.0-1.0	.17	.17			
		20-80	0-5	1.55-1.65	6-20	0.04-0.10	0.0-2.9	0.0-0.5	.10	.17			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D37F:													
Dorset, bedrock substratum----------	70	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	3	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
		60-80	---	---	---	---	---	---	---	---			
Rock outcrop----------	20	---	---	---	---	---	---	---	---	---	-	---	---
Hubbard, bedrock substratum----------	10	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	4	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		23-60	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		60-80	---	---	---	---	---	---	---	---			
D40A:													
Kratka, thick solum---	80	0-10	2-10	1.20-1.50	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		10-30	2-6	1.30-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		30-60	10-35	1.50-1.80	0.2-2	0.11-0.19	3.0-5.9	0.0-0.5	.32	.32			
Duelm----------	10	0-16	2-10	1.40-1.60	6-20	0.08-0.12	0.0-2.9	2.0-6.0	.17	.17	5	2	134
		16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
		30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Foldahl, MAP >25------	10	0-16	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	2.0-4.0	.17	.17	5	2	134
		16-31	1-8	1.55-1.65	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		31-40	10-25	1.65-1.75	0.6-2	0.15-0.17	0.0-2.9	0.0-0.5	.32	.32			
		40-60	12-25	1.65-1.75	0.6-2	0.15-0.17	0.0-2.9	0.0-0.5	.32	.32			
D41C:													
Urban land----------	75	---	---	---	---	---	---	---	---	---	-	---	---
Waukon----------	20	0-8	4-16	1.45-1.60	2-6	0.13-0.15	0.0-2.9	2.0-5.0	.24	.24	5	3	86
		8-43	18-35	1.40-1.60	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.32	.32			
		43-80	18-30	1.45-1.65	0.6-2	0.15-0.19	0.0-2.9	0.0-0.5	.32	.32			
Braham----------	5	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-42	18-30	1.50-1.70	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		42-60	16-30	1.55-1.75	0.6-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D43A:													
Gonvick, terrace------	85	0-12	10-27	1.30-1.45	0.6-2	0.20-0.22	3.0-5.9	2.0-5.0	.24	.24	5	6	48
		12-30	22-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32			
		30-60	18-35	1.40-1.65	0.6-2	0.15-0.19	0.0-2.9	0.0-0.5	.32	.32			
Braham----------	15	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-42	18-30	1.50-1.70	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		42-60	16-30	1.55-1.75	0.6-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
GP.													
Pits, gravel-													
Udipsamments													
L2B:													
Malardi----------	65	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Hawick----------	25	0-7	5-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		7-11	1-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		11-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			
Rasset----------	5	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
Eden Prairie----------	5	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L2C:													
Malardi----------	60	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Hawick----------	25	0-7	5-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		7-11	1-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		11-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L2C:													
Tomall----------	10	0-33	12-20	1.25-1.40	0.6-2	0.20-0.24	0.9-3.2	4.0-9.0	.28	.28	5	5	56
		33-42	10-18	1.40-1.60	0.6-2	0.15-0.19	0.9-4.2	0.2-1.0	.28	.28			
		42-47	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.1-0.5	.05	.15			
		47-80	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05	.15			
Crowfork----------	5	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L2D:													
Malardi----------	55	0-9	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Hawick----------	30	0-7	5-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		7-11	1-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		11-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			
Tomall----------	10	0-33	12-20	1.25-1.40	0.6-2	0.20-0.24	0.9-3.2	4.0-9.0	.28	.28	5	5	56
		33-42	10-18	1.40-1.60	0.6-2	0.15-0.19	0.9-4.2	0.2-1.0	.28	.28			
		42-47	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.1-0.5	.05	.15			
		47-80	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05	.15			
Crowfork----------	5	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L2E:													
Malardi----------	55	0-9	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	4.0-8.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Hawick----------	30	0-7	5-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		7-11	1-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		11-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			
Tomall----------	15	0-33	12-20	1.25-1.40	0.6-2	0.20-0.24	0.9-3.2	4.0-9.0	.28	.28	5	5	56
		33-42	10-18	1.40-1.60	0.6-2	0.15-0.19	0.9-4.2	0.2-1.0	.28	.28			
		42-47	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.1-0.5	.05	.15			
		47-80	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L3A:													
Rasset----------	90	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
Malardi----------	8	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Eden Prairie----------	2	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L3B:													
Rasset----------	80	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
Malardi----------	15	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Eden Prairie----------	5	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L3C:													
Rasset----------	75	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
Malardi----------	10	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L3C:													
Tomall----------	10	0-33	12-20	1.25-1.40	0.6-2	0.20-0.24	0.9-3.2	4.0-9.0	.28	.28	5	5	56
		33-42	10-18	1.40-1.60	0.6-2	0.15-0.19	0.9-4.2	0.2-1.0	.28	.28			
		42-47	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.1-0.5	.05	.15			
		47-80	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05	.15			
Eden Prairie----------	5	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L4B:													
Crowfork----------	90	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Eden Prairie----------	10	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L4C:													
Crowfork----------	90	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Eden Prairie----------	10	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L4D:													
Crowfork----------	85	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Eden Prairie----------	15	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L6A:													
Biscay----------	85	0-20	18-30	1.20-1.30	0.6-2	0.20-0.22	3.0-5.9	4.0-8.0	.28	.28	4	6	48
		20-28	18-30	1.25-1.35	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.28	.28			
		28-36	10-28	1.35-1.55	2-6	0.11-0.17	0.0-2.9	0.5-1.0	.28	.32			
		36-60	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Biscay, depressional--	10	0-23	18-30	1.20-1.30	0.6-2	0.20-0.22	3.0-5.9	4.0-8.0	.28	.28	4	6	48
		23-28	18-30	1.25-1.35	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.28	.28			
		28-36	10-28	1.35-1.55	2-6	0.11-0.17	0.0-2.9	0.5-1.0	.28	.32			
		36-60	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Mayer----------	5	0-18	18-30	1.25-1.35	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.24	.24	4	4L	86
		18-33	18-30	1.25-1.35	0.6-2	0.16-0.19	0.0-2.9	0.5-1.0	.28	.28			
		33-80	1-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.15	.15			
L7A:													
Biscay, depressional--	80	0-23	18-30	1.20-1.30	0.6-2	0.20-0.22	3.0-5.9	4.0-8.0	.28	.28	4	6	48
		23-28	18-30	1.25-1.35	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.28	.28			
		28-36	10-28	1.35-1.55	2-6	0.11-0.17	0.0-2.9	0.5-1.0	.28	.32			
		36-60	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Biscay----------	15	0-20	18-30	1.20-1.30	0.6-2	0.20-0.22	3.0-5.9	4.0-8.0	.28	.28	4	6	48
		20-28	18-30	1.25-1.35	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.28	.28			
		28-36	10-28	1.35-1.55	2-6	0.11-0.17	0.0-2.9	0.5-1.0	.28	.32			
		36-60	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Mayer----------	5	0-18	18-30	1.25-1.35	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.24	.24	4	4L	86
		18-33	18-30	1.25-1.35	0.6-2	0.16-0.19	0.0-2.9	0.5-1.0	.28	.28			
		33-80	1-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.15	.15			
L8A:													
Darfur----------	95	0-16	13-16	1.30-1.50	0.6-6	0.15-0.17	0.0-2.9	4.0-6.0	.20	.20	4	3	86
		16-32	10-23	1.35-1.50	2-6	0.15-0.17	0.0-2.9	0.2-0.8	.20	.20			
		32-80	2-12	1.45-1.60	2-20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.20			
Dassel----------	5	0-14	6-18	1.30-1.45	2-6	0.16-0.20	0.0-2.9	3.0-15	.20	.20	4	3	86
		14-31	2-10	1.40-1.60	2-6	0.12-0.17	0.0-2.9	1.0-4.0	.20	.20			
		31-80	2-8	1.45-1.65	6-20	0.08-0.10	0.0-2.9	0.0-1.0	.20	.20			
L9A:													
Minnetonka----------	90	0-13	27-35	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	7	38
		13-35	35-60	1.20-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-1.0	.28	.28			
		35-60	25-40	1.25-1.55	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	.28	.28			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L9A:													
Depressional soil-----	10	0-16	27-35	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	7	38
		16-42	35-60	1.20-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-1.0	.28	.28			
		42-60	25-40	1.25-1.55	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	.28	.28			
L10B:													
Kasota----------	80	0-10	27-35	1.25-1.40	0.2-0.6	0.18-0.20	3.0-5.9	3.0-6.0	.28	.28	4	7	38
		10-28	35-60	1.30-1.50	0.2-0.6	0.12-0.18	6.0-8.9	0.0-1.0	.32	.32			
		28-32	2-10	1.50-1.70	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
		32-60	1-5	1.50-1.70	6-20	0.02-0.06	0.0-2.9	0.0-0.2	.15	.15			
Eden Prairie----------	10	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Wet soil in swales----	10	0-13	27-35	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	7	38
		13-35	35-60	1.20-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-1.0	.28	.28			
		35-60	25-40	1.25-1.55	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	.28	.28			
		60-80	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
L11B:													
Grays----------	90	0-7	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	3	86
		7-25	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43			
		25-60	5-20	1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43			
Kasota----------	5	0-10	27-35	1.25-1.40	0.2-0.6	0.18-0.20	3.0-5.9	3.0-6.0	.28	.28	4	7	38
		10-28	35-60	1.30-1.50	0.2-0.6	0.12-0.18	6.0-8.9	0.0-1.0	.32	.32			
		28-32	2-10	1.50-1.70	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
		32-60	1-5	1.50-1.70	6-20	0.02-0.06	0.0-2.9	0.0-0.2	.15	.15			
Crowfork----------	5	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L12A:													
Muskego, frequently flooded----------	30	0-9	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	---	---	1	8	0
		9-36	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	---	---			
		36-60	18-35	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28			
Blue Earth, frequently flooded----------	30	0-50	18-32	0.20-0.80	0.6-2	0.18-0.24	3.0-5.9	10-25	.28	.28	5	8	0
		50-60	18-32	0.20-0.80	0.6-2	0.18-0.24	0.0-2.9	10-25	.28	.28			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L12A:													
Houghton, frequently flooded----------	30	0-80	---	0.15-0.25	0.2-6	0.35-0.45	---	70-99	---	---	3	8	0
Oshawa, frequently flooded----------	10	0-12	18-27	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	4.0-10	.28	.28	5	8	0
		12-60	18-35	1.30-1.35	0.2-0.6	0.17-0.19	0.0-2.9	0.5-4.0	.28	.28			
L13A:													
Klossner, drained-----	80	0-26	---	0.25-0.55	0.2-6	0.35-0.48	---	25-60	---	---	2	2	134
		26-36	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		36-48	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28			
		48-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
Mineral soil, drained	15	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	18-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	15-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	15-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Houghton, drained-----	5	0-10	---	0.15-0.25	0.2-6	0.35-0.45	---	70-99	---	---	3	2	134
		10-80	---	0.15-0.25	0.2-6	0.35-0.45	---	70-99	---	---			
L14A:													
Houghton, drained-----	80	0-10	---	0.15-0.25	0.2-6	0.35-0.45	---	70-99	---	---	3	2	134
		10-80	---	0.15-0.25	0.2-6	0.35-0.45	---	70-99	---	---			
Klossner, drained-----	10	0-26	---	0.25-0.55	0.2-6	0.35-0.48	---	25-60	---	---	2	2	134
		26-36	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		36-48	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28			
		48-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
Mineral soil, drained	10	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	18-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	15-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	15-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L15A:													
Klossner, ponded------	30	0-26	---	0.25-0.55	0.2-6	0.35-0.48	---	25-60	---	---	2	8	0
		26-33	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		33-40	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28			
		40-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
Okoboji, ponded-------	30	0-10	30-40	1.20-1.25	0.6-2	0.22-0.25	3.0-5.9	10-18	.32	.32	5	8	0
		10-52	35-45	1.35-1.40	0.2-0.6	0.18-0.20	6.0-8.9	4.0-8.0	.37	.37			
		52-60	35-45	1.35-1.40	0.2-0.6	0.18-0.20	6.0-8.9	0.2-1.0	.37	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L15A:													
Glencoe, ponded-------	30	0-42	27-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	8	0
		42-50	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	2.0-6.0	.28	.28			
		50-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Houghton, ponded------	10	0-80	---	0.15-0.25	0.2-6	0.35-0.45	---	70-99	---	---	3	8	0
L16A:													
Muskego, ponded-------	30	0-9	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	---	---	1	8	0
		9-36	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	---	---			
		36-60	18-35	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28			
Blue Earth, ponded----	30	0-50	18-32	0.20-0.80	0.6-2	0.18-0.24	3.0-5.9	10-25	.28	.28	5	8	0
		50-60	18-32	0.20-0.80	0.6-2	0.18-0.24	0.0-2.9	10-25	.28	.28			
Houghton, ponded------	30	0-80	---	0.15-0.25	0.2-6	0.35-0.45	---	70-99	---	---	3	8	0
Klossner, ponded------	10	0-26	---	0.25-0.55	0.2-6	0.35-0.48	---	25-60	---	---	2	8	0
		26-33	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		33-40	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28			
		40-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
L17B:													
Angus----------	50	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Malardi----------	30	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Moon----------	10	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37			
Cordova----------	10	0-13	15-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L18A:													
Shields----------	85	0-8	27-40	1.15-1.25	0.6-2	0.18-0.22	3.0-5.9	4.0-6.0	.37	.37	5	7	38
		8-41	40-60	1.25-1.35	0.06-0.2	0.10-0.16	6.0-8.9	0.5-2.0	.37	.37			
		41-80	27-50	1.35-1.45	0.2-2	0.11-0.19	6.0-8.9	0.0-0.5	.37	.37			
Lerdal----------	10	0-9	27-32	1.15-1.25	0.2-2	0.18-0.22	3.0-5.9	4.0-6.0	.37	.37	5	7	38
		9-42	35-55	1.25-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-0.8	.32	.32			
		42-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Mazaska----------	5	0-15	27-40	1.15-1.30	0.2-0.6	0.17-0.22	6.0-8.9	4.0-7.0	.28	.28	5	7	38
		15-42	35-50	1.25-1.40	0.06-0.2	0.10-0.16	6.0-8.9	0.5-2.0	.28	.28			
		42-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L19B:													
Moon----------	85	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37			
Finchford----------	15	0-18	5-10	1.50-1.55	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		18-30	2-8	1.50-1.60	6-20	0.04-0.06	0.0-2.9	0.0-1.0	.15	.15			
		30-60	2-5	1.60-1.70	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
L20B:													
Fedji, silty substratum----------	85	0-10	2-10	1.40-1.55	6-20	0.10-0.13	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		10-30	2-10	1.45-1.65	6-20	0.09-0.11	0.0-2.9	0.2-1.0	.17	.17			
		30-39	18-35	1.45-1.60	0.2-2	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43			
		39-60	10-30	1.45-1.60	0.2-2	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43			
Finchford----------	15	0-18	5-10	1.50-1.55	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		18-30	2-8	1.50-1.60	6-20	0.04-0.06	0.0-2.9	0.0-1.0	.15	.15			
		30-60	2-5	1.60-1.70	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
L21A:													
Canisteo----------	80	0-17	20-30	1.25-1.35	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.24	.24	5	4L	86
		17-36	25-35	1.30-1.50	0.6-2	0.12-0.18	0.0-2.9	0.5-1.0	.32	.32			
		36-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cordova----------	15	0-13	15-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L21A:													
Glencoe----------	5	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L22C2:													
Lester, eroded--------	70	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Angus----------	15	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	12	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	3	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L22D2:													
Lester, eroded--------	80	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	10	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	5	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	5	0-23	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		23-38	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		38-50	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.8-2.5	.32	.32			
		50-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L22E:													
Lester, morainic------	75	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	15	0-24	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		57-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	5	0-22	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	5	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
		32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L22F:													
Lester, morainic------	75	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	10	0-24	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		57-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	10	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
		32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	5	0-22	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L23A:													
Cordova----------	85	0-13	15-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L23A:													
Glencoe----------	10	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Nessel----------	5	0-6	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		6-38	18-30	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32			
		38-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L24A:													
Glencoe, depressional	90	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cordova----------	10	0-13	15-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L25A:													
Le Sueur----------	80	0-17	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	3.0-7.0	.28	.28	5	6	48
		17-36	24-35	1.30-1.45	0.6-2	0.15-0.19	3.0-5.9	0.5-2.0	.32	.32			
		36-46	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cordova----------	15	0-13	15-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Angus----------	5	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L26A:													
Shorewood----------	85	0-17	30-40	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	4	86
		17-39	36-55	1.20-1.35	0.2-0.6	0.13-0.16	6.0-8.9	1.0-4.0	.32	.32			
		39-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Minnetonka----------	10	0-13	27-35	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	7	38
		13-35	35-60	1.20-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-1.0	.28	.28			
		35-60	25-40	1.25-1.55	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	.28	.28			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L26A:													
Good Thunder----------	5	0-15	30-40	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	4	86
		15-32	36-55	1.20-1.35	0.06-0.6	0.13-0.16	6.0-8.9	1.0-3.0	.32	.32			
		32-80	18-32	1.25-1.35	0.6-2	0.16-0.20	0.0-2.9	0.0-1.0	.37	.37			
L26B:													
Shorewood----------	90	0-17	30-40	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	4	86
		17-39	36-55	1.20-1.35	0.2-0.6	0.13-0.16	6.0-8.9	1.0-4.0	.32	.32			
		39-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Good Thunder----------	5	0-15	30-40	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	4	86
		15-32	36-55	1.20-1.35	0.06-0.6	0.13-0.16	6.0-8.9	1.0-3.0	.32	.32			
		32-80	18-32	1.25-1.35	0.6-2	0.16-0.20	0.0-2.9	0.0-1.0	.37	.37			
Minnetonka----------	5	0-13	27-35	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	7	38
		13-35	35-60	1.20-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-1.0	.28	.28			
		35-60	25-40	1.25-1.55	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	.28	.28			
L26C2:													
Shorewood, eroded-----	95	0-17	30-40	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	1.0-3.0	.28	.28	5	4	86
		17-39	36-55	1.20-1.35	0.2-0.6	0.13-0.16	6.0-8.9	1.0-4.0	.32	.32			
		39-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Minnetonka----------	5	0-13	27-35	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	7	38
		13-35	35-60	1.20-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-1.0	.28	.28			
		35-60	25-40	1.25-1.55	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	.28	.28			
L27A:													
Suckercreek, frequently flooded---	85	0-22	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.28	.28	5	8	0
		22-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28			
Suckercreek, occasionally flooded	10	0-12	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.24	.24	5	8	0
		12-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28			
Hanlon, occasionally flooded----------	5	0-40	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	2.0-3.0	.20	.20	5	8	0
		40-63	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	1.0-2.0	.20	.20			
		63-70	5-10	1.55-1.70	2-6	0.11-0.13	0.0-2.9	1.0-2.0	.20	.20			
		70-80	2-18	1.55-1.70	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.24	.24			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L28A:													
Suckercreek, occasionally flooded	80	0-12	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.24	.24	5	3	86
		12-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28			
Suckercreek, frequently flooded---	10	0-22	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.28	.28	5	5	56
		22-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28			
Hanlon, occasionally flooded----------	10	0-40	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	2.0-3.0	.20	.20	5	3	86
		40-63	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	1.0-2.0	.20	.20			
		63-70	5-10	1.55-1.70	2-6	0.11-0.13	0.0-2.9	1.0-2.0	.20	.20			
		70-80	2-18	1.55-1.70	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.24	.24			
L29A:													
Hanlon, occasionally flooded----------	80	0-40	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	2.0-3.0	.20	.20	5	3	86
		40-63	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	1.0-2.0	.20	.20			
		63-70	5-10	1.55-1.70	2-6	0.11-0.13	0.0-2.9	1.0-2.0	.20	.20			
		70-80	2-18	1.55-1.70	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.24	.24			
Suckercreek, occasionally flooded	10	0-12	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.24	.24	5	3	86
		12-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28			
Suckercreek, frequently flooded---	10	0-22	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.28	.28	5	5	56
		22-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28			
L30A:													
Medo, surface drained	65	0-27	---	0.25-0.45	0.2-6	0.35-0.45	---	55-85	---	---	2	2	134
		27-35	15-30	1.15-1.65	0.6-6	0.13-0.20	3.0-5.9	5.0-20	.24	.24			
		35-39	15-30	1.15-1.65	0.6-6	0.13-0.20	3.0-5.9	0.5-2.0	.24	.24			
		39-80	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.10			
Medo, drained---------	20	0-27	---	0.25-0.45	0.2-6	0.35-0.45	---	55-85	---	---	2	2	134
		27-35	15-30	1.15-1.65	0.6-6	0.13-0.20	3.0-5.9	5.0-20	.24	.24			
		35-39	15-30	1.15-1.65	0.6-6	0.13-0.20	3.0-5.9	0.5-2.0	.24	.24			
		39-80	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.10			
Mineral soil, drained	15	0-23	6-18	1.30-1.45	2-6	0.16-0.20	0.0-2.9	3.0-15	.20	.20	4	3	86
		23-31	2-6	1.40-1.60	2-6	0.12-0.17	0.0-2.9	0.5-1.0	.20	.20			
		31-60	2-6	1.45-1.65	6-20	0.02-0.08	0.0-2.9	0.0-0.5	.05	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L31A:													
Medo, ponded----------	30	0-20	---	0.25-0.45	0.2-6	0.35-0.45	---	55-85	---	---	2	8	0
		20-34	15-30	1.15-1.65	0.6-6	0.13-0.20	3.0-5.9	5.0-20	.24	.24			
		34-60	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.10			
Dassel, ponded--------	30	0-23	6-18	1.30-1.45	2-6	0.16-0.20	0.0-2.9	3.0-15	.20	.20	4	8	0
		23-31	2-6	1.40-1.60	2-6	0.12-0.17	0.0-2.9	0.5-1.0	.20	.20			
		31-60	2-6	1.45-1.65	6-20	0.02-0.08	0.0-2.9	0.0-0.5	.05	.15			
Biscay, ponded--------	30	0-24	18-27	1.20-1.30	0.6-2	0.20-0.22	3.0-5.9	4.0-8.0	.28	.28	4	8	0
		24-29	18-30	1.25-1.35	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.28	.28			
		29-60	1-6	1.55-1.65	6-40	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Houghton, ponded------	5	0-80	---	0.15-0.25	0.2-6	0.35-0.45	---	70-99	---	---	3	8	0
Muskego, ponded-------	5	0-9	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	---	---	1	8	0
		9-36	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	---	---			
		36-60	18-35	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28			
L32D:													
Hawick----------	75	0-11	3-6	1.50-1.55	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-15	1-6	1.50-1.60	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		15-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			
Crowfork----------	15	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-19	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		19-54	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		54-60	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Tomall----------	10	0-33	12-20	1.25-1.40	0.6-2	0.20-0.24	0.9-3.2	4.0-9.0	.28	.28	5	5	56
		33-42	10-18	1.40-1.60	0.6-2	0.15-0.19	0.9-4.2	0.2-1.0	.28	.28			
		42-47	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.1-0.5	.05	.15			
		47-80	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05	.15			
L32F:													
Hawick----------	75	0-11	3-6	1.50-1.55	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-15	1-6	1.50-1.60	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		15-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			
Crowfork----------	15	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-19	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		19-54	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		54-60	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L32F:													
Tomall----------	10	0-33	12-20	1.25-1.40	0.6-2	0.20-0.24	0.9-3.2	4.0-9.0	.28	.28	5	5	56
		33-42	10-18	1.40-1.60	0.6-2	0.15-0.19	0.9-4.2	0.2-1.0	.28	.28			
		42-47	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.1-0.5	.05	.15			
		47-80	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05	.15			
L35A:													
Lerdal----------	80	0-13	15-27	1.15-1.35	0.6-2	0.18-0.22	0.0-2.9	4.0-6.0	.28	.28	5	6	48
		13-47	35-55	1.25-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-0.8	.32	.32			
		47-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Mazaska----------	10	0-15	27-40	1.15-1.30	0.2-0.6	0.17-0.22	6.0-8.9	4.0-7.0	.28	.28	5	7	38
		15-42	35-50	1.25-1.40	0.06-0.2	0.10-0.16	6.0-8.9	0.5-2.0	.28	.28			
		42-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cordova----------	5	0-13	15-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Le Sueur----------	5	0-17	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	3.0-7.0	.28	.28	5	6	48
		17-36	24-35	1.30-1.45	0.6-2	0.15-0.19	3.0-5.9	0.5-2.0	.32	.32			
		36-46	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L36A:													
Hamel, overwash-------	50	0-13	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	3.0-5.0	.28	.28	5	6	48
		13-29	20-30	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28			
		29-50	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		50-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	43	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	5	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Glencoe----------	2	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L37B:													
Angus, morainic-------	80	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Angus, eroded---------	10	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		35-58	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		58-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Le Sueur----------	5	0-17	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	3.0-7.0	.28	.28	5	6	48
		17-36	24-35	1.30-1.45	0.6-2	0.15-0.19	3.0-5.9	0.5-2.0	.32	.32			
		36-46	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cordova----------	5	0-13	15-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L38A:													
Rushriver, occasionally flooded	75	0-46	5-18	1.40-1.60	2-6	0.11-0.17	0.0-2.9	1.0-4.0	.24	.24	5	3	86
		46-80	2-10	1.55-1.65	2-20	0.06-0.15	0.0-2.9	0.5-2.0	.17	.17			
Oshawa, frequently flooded----------	15	0-12	18-27	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	4.0-10	.28	.28	5	6	48
		12-60	18-35	1.30-1.35	0.2-0.6	0.17-0.19	0.0-2.9	0.5-4.0	.28	.28			
Minneiska, occasionally flooded	5	0-10	5-18	1.35-1.50	2-6	0.15-0.18	0.0-2.9	2.0-5.0	.20	.20	5	3	86
		10-60	5-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	1.0-2.0	.28	.28			
Algansee, occasionally flooded----------	5	0-6	1-15	1.35-1.50	6-20	0.10-0.12	0.0-2.9	2.0-4.0	.17	.17	5	2	134
		6-60	1-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
L39A:													
Minneiska, occasionally flooded	70	0-10	5-18	1.35-1.50	2-6	0.15-0.18	0.0-2.9	2.0-5.0	.20	.20	5	3	86
		10-60	5-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	1.0-2.0	.28	.28			
Rushriver, occasionally flooded	15	0-46	5-18	1.40-1.60	2-6	0.11-0.17	0.0-2.9	1.0-4.0	.24	.24	5	3	86
		46-80	2-10	1.55-1.65	2-20	0.06-0.15	0.0-2.9	0.5-2.0	.17	.17			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L39A:													
Oshawa, frequently flooded	10	0-12	18-27	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	4.0-10	.28	.28	5	6	48
		12-60	18-35	1.30-1.35	0.2-0.6	0.17-0.19	0.0-2.9	0.5-4.0	.28	.28			
Algansee, occasionally flooded	5	0-6	1-15	1.35-1.50	6-20	0.10-0.12	0.0-2.9	2.0-4.0	.17	.17	5	2	134
		6-60	1-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
L40B:													
Angus	45	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Kilkenny	40	0-11	27-30	1.15-1.25	0.2-0.6	0.17-0.19	3.0-5.9	2.0-4.0	.28	.28	5	6	48
		11-35	35-45	1.25-1.35	0.2-0.6	0.15-0.19	3.0-5.9	0.2-1.0	.28	.28			
		35-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Lerdal	10	0-8	27-32	1.15-1.25	0.6-2	0.18-0.22	3.0-5.9	4.0-6.0	.37	.37	5	6	48
		8-12	27-32	1.15-1.25	0.6-2	0.18-0.22	3.0-5.9	0.2-1.5	.37	.37			
		12-41	35-55	1.25-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-0.8	.32	.32			
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Mazaska	5	0-15	27-40	1.15-1.30	0.2-0.6	0.17-0.22	6.0-8.9	4.0-7.0	.28	.28	5	7	38
		15-42	35-50	1.25-1.40	0.06-0.2	0.10-0.16	6.0-8.9	0.5-2.0	.28	.28			
		42-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L41C2:													
Lester, eroded	45	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Kilkenny, eroded	40	0-9	27-30	1.15-1.25	0.2-0.6	0.17-0.19	3.0-5.9	1.0-3.0	.28	.28	5	6	48
		9-53	35-45	1.25-1.35	0.2-0.6	0.15-0.19	3.0-5.9	0.2-1.0	.28	.28			
		53-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril	10	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L41C2:													
Derrynane----------	5	0-19	30-40	1.20-1.40	0.06-0.6	0.17-0.19	6.0-8.9	5.0-10	.28	.28	5	4	86
		19-39	35-45	1.40-1.55	0.06-0.6	0.13-0.16	6.0-8.9	5.0-10	.28	.28			
		39-65	27-35	1.40-1.55	0.2-0.6	0.15-0.19	3.0-5.9	1.0-5.0	.28	.28			
		65-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L41D2:													
Lester, eroded--------	45	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Kilkenny, eroded------	35	0-9	27-30	1.15-1.25	0.2-0.6	0.17-0.19	3.0-5.9	1.0-3.0	.28	.28	5	6	48
		9-53	35-45	1.25-1.35	0.2-0.6	0.15-0.19	3.0-5.9	0.2-1.0	.28	.28			
		53-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	10	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Derrynane----------	5	0-19	30-40	1.20-1.40	0.06-0.6	0.17-0.19	6.0-8.9	5.0-10	.28	.28	5	4	86
		19-39	35-45	1.40-1.55	0.06-0.6	0.13-0.16	6.0-8.9	5.0-10	.28	.28			
		39-65	27-35	1.40-1.55	0.2-0.6	0.15-0.19	3.0-5.9	1.0-5.0	.28	.28			
		65-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	5	0-23	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		23-38	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		38-50	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.8-2.5	.32	.32			
		50-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L41E:													
Lester----------	45	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Kilkenny----------	40	0-7	27-30	1.15-1.25	0.2-0.6	0.17-0.19	3.0-5.9	2.0-4.0	.28	.28	5	6	48
		7-31	35-45	1.25-1.35	0.2-0.6	0.15-0.19	3.0-5.9	0.2-1.0	.28	.28			
		31-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	5	0-24	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		57-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L41E:													
Derrynane----------	5	0-20	30-40	1.20-1.40	0.06-0.6	0.17-0.19	6.0-8.9	5.0-10	.28	.28	5	4	86
		20-40	35-45	1.40-1.55	0.06-0.6	0.13-0.16	6.0-8.9	5.0-10	.28	.28			
		40-54	27-40	1.40-1.55	0.2-0.6	0.15-0.19	3.0-5.9	1.0-5.0	.28	.28			
		54-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	5	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
		32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L41F:													
Lester----------	45	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Kilkenny----------	35	0-7	27-30	1.15-1.25	0.2-0.6	0.17-0.19	3.0-5.9	4.0-8.0	.28	.28	5	6	48
		7-31	35-45	1.25-1.35	0.2-0.6	0.15-0.19	3.0-5.9	0.2-1.0	.28	.28			
		31-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	10	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
		32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	5	0-24	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		57-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Derrynane----------	5	0-20	30-40	1.20-1.40	0.06-0.6	0.17-0.19	6.0-8.9	5.0-10	.28	.28	5	4	86
		20-40	35-45	1.40-1.55	0.06-0.6	0.13-0.16	6.0-8.9	5.0-10	.28	.28			
		40-54	27-40	1.40-1.55	0.2-0.6	0.15-0.19	3.0-5.9	1.0-5.0	.28	.28			
		54-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L42B:													
Kingsley----------	70	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Gotham----------	25	0-9	2-4	1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L42B:													
Grays----------	5	0-7	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	3	86
		7-25	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43			
		25-60	5-20	1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43			
L42C:													
Kingsley----------	70	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Gotham----------	25	0-9	2-4	1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
Grays----------	5	0-7	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	3	86
		7-25	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43			
		25-60	5-20	1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43			
L42D:													
Kingsley----------	70	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Gotham----------	25	0-9	2-4	1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
Grays----------	5	0-7	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	3	86
		7-25	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43			
		25-60	5-20	1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43			
L42E:													
Kingsley----------	70	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Gotham----------	25	0-9	2-4	1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L42E:													
Grays----------	5	0-7	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	3	86
		7-25	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43			
		25-60	5-20	1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43			
L42F:													
Kingsley----------	70	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Gotham----------	25	0-9	2-4	1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
Grays----------	5	0-7	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	3	86
		7-25	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43			
		25-60	5-20	1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43			
L43A:													
Brouillett, occasionally flooded	80	0-14	18-27	1.20-1.45	0.6-2	0.19-0.24	0.0-2.9	3.0-6.0	.32	.32	5	6	48
		14-36	15-22	1.20-1.50	0.6-2	0.16-0.22	0.0-2.9	3.0-6.0	.32	.32			
		36-44	15-30	1.20-1.55	0.6-2	0.15-0.20	0.0-2.9	1.0-3.0	.32	.32			
		44-60	8-20	1.35-1.60	0.6-6	0.05-0.18	0.0-2.9	1.0-2.0	.32	.32			
Minneiska, occasionally flooded	10	0-10	5-18	1.35-1.50	2-6	0.15-0.18	0.0-2.9	2.0-5.0	.20	.20	5	3	86
		10-60	5-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	1.0-2.0	.28	.28			
Rushriver, occasionally flooded	10	0-46	5-18	1.40-1.60	2-6	0.11-0.17	0.0-2.9	1.0-4.0	.24	.24	5	3	86
		46-80	2-10	1.55-1.65	2-20	0.06-0.15	0.0-2.9	0.5-2.0	.17	.17			
L44A:													
Nessel----------	85	0-6	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		6-38	18-30	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32			
		38-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cordova----------	10	0-13	15-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L44A:													
Angus----------	5	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L45A:													
Dundas----------	65	0-9	10-27	1.30-1.45	0.6-2	0.22-0.24	3.0-5.9	2.0-4.0	.28	.28	5	6	48
		9-15	15-22	1.35-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.28			
		15-40	20-35	1.40-1.55	0.2-0.6	0.15-0.19	3.0-5.9	0.2-1.0	.28	.28			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cordova----------	25	0-13	15-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Nessel----------	5	0-6	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		6-38	18-30	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32			
		38-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Glencoe----------	5	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L46A:													
Tomall----------	80	0-33	12-20	1.25-1.40	0.6-2	0.20-0.24	0.9-3.2	4.0-9.0	.28	.28	5	5	56
		33-42	10-18	1.40-1.60	0.6-2	0.15-0.19	0.9-4.2	0.2-1.0	.28	.28			
		42-47	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.1-0.5	.05	.15			
		47-80	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05	.15			
Rasset----------	10	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
Malardi----------	10	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
L47A:													
Eden Prairie----------	85	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L47A:													
Malardi----------	10	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Rasset----------	5	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
L47B:													
Eden Prairie----------	80	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Malardi----------	10	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Rasset----------	10	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
L47C:													
Eden Prairie----------	70	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Malardi----------	10	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Rasset----------	10	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
Hawick----------	10	0-7	5-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		7-11	1-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		11-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L49A:													
Klossner, surface drained----------	65	0-26	---	0.25-0.55	0.2-6	0.35-0.48	---	25-60	---	---	2	2	134
		26-33	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		33-40	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28			
		40-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
Klossner, drained-----	20	0-26	---	0.25-0.55	0.2-6	0.35-0.48	---	25-60	---	---	2	2	134
		26-36	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		36-48	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28			
		48-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
Mineral soil, drained	15	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	18-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	15-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	15-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L50A:													
Houghton, surface drained----------	40	0-80	---	0.15-0.25	0.2-6	0.35-0.45	---	70-99	---	---	3	2	134
Muskego, surface drained----------	40	0-9	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	.02	.02	1	2	134
		9-36	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	.02	.02			
		36-60	18-35	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28			
Klossner, drained-----	10	0-26	---	0.25-0.55	0.2-6	0.35-0.48	---	25-60	.02	.02	2	2	134
		26-36	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		36-48	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28			
		48-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
Mineral soil, drained	10	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	18-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	15-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	15-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L52C:													
Urban land----------	75	---	---	---	---	---	---	---	---	---	-	---	---
Lester----------	20	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L52C:													
Kingsley----------	5	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
L52E:													
Urban land----------	75	---	---	---	---	---	---	---	---	---	-	---	---
Lester----------	20	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Kingsley----------	5	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
L53B:													
Urban land----------	70	---	---	---	---	---	---	---	---	---	-	---	---
Moon----------	20	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37			
Lester----------	10	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L54A:													
Urban land----------	70	---	---	---	---	---	---	---	---	---	-	---	---
Dundas----------	20	0-9	10-27	1.30-1.45	0.6-2	0.22-0.24	3.0-5.9	2.0-4.0	.28	.28	5	6	48
		9-15	15-22	1.35-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.28			
		15-40	20-35	1.40-1.55	0.2-0.6	0.15-0.19	3.0-5.9	0.2-1.0	.28	.28			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Nessel----------	10	0-6	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		6-38	18-30	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32			
		38-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L55B:													
Urban land----------	70	---	---	---	---	---	---	---	---	---	-	---	---
Malardi----------	20	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Rasset----------	5	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
Eden Prairie----------	5	0-10	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L55C:													
Urban land----------	70	---	---	---	---	---	---	---	---	---	-	---	---
Malardi----------	20	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Hawick----------	5	0-7	5-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		7-11	1-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		11-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15			
Crowfork----------	5	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L56A:													
Muskego, frequently flooded----------	45	0-9	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	---	---	1	8	0
		9-36	---	0.10-0.21	0.6-6	0.35-0.45	---	60-90	---	---			
		36-60	18-35	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L56A:													
Klossner, frequently flooded	45	0-26	---	0.25-0.55	0.2-6	0.35-0.48	---	25-60	---	---	2	8	0
		26-33	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		33-40	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28			
		40-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
Suckercreek, frequently flooded	10	0-22	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.28	.28	5	8	0
		22-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28			
L58B:													
Koronis	60	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	56
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28			
Kingsley	25	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Forestcity	10	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.2-0.5	.24	.24			
Gotham	5	0-9	2-4	1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
L58C2:													
Koronis, eroded	55	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28			
Kingsley, eroded	25	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	1.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Forestcity	15	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.2-0.5	.24	.24			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L58C2:													
Gotham----------	5	0-9	2-4	1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
L58D2:													
Koronis, eroded-------	55	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28			
Kingsley, eroded------	25	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	1.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Forestcity----------	15	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.2-0.5	.24	.24			
Gotham----------	5	0-9	2-4	1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
L58E:													
Koronis----------	55	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28			
Kingsley----------	25	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Forestcity----------	15	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			
Gotham----------	5	0-9	2-4	1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L59A:													
Forestcity----------	70	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	2.0-5.0	.20	.20	5	3	86
		22-43	18-28	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-8.0	.32	.32			
		43-60	12-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.0-1.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			
Lundlake, depressional	25	0-20	20-27	1.20-1.45	0.2-2	0.17-0.22	3.0-5.9	5.0-12	.28	.28	5	6	48
		20-46	20-30	1.20-1.45	0.2-2	0.17-0.22	3.0-5.9	2.0-5.0	.28	.28			
		46-54	16-27	1.30-1.50	0.6-2	0.15-0.19	0.0-2.9	0.0-1.0	.28	.28			
		54-60	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			
Marcellon----------	5	0-13	13-20	1.25-1.35	0.6-2	0.17-0.24	0.0-2.9	3.0-7.0	.24	.24	5	5	56
		13-32	20-27	1.45-1.55	0.6-2	0.12-0.18	3.0-5.9	0.0-1.0	.32	.32			
		32-60	10-20	1.55-1.65	0.6-2	0.10-0.16	0.0-2.9	0.0-0.5	.24	.24			
L60B:													
Angus----------	65	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Moon----------	30	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37			
Hamel----------	5	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L61C2:													
Lester, eroded--------	60	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Metea, eroded---------	25	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37			
Terril----------	12	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L61C2:													
Hamel----------	3	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L61D2:													
Lester, eroded--------	55	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Metea, eroded---------	25	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37			
Terril----------	12	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	5	0-23	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		23-38	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		38-50	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.8-2.5	.32	.32			
		50-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	3	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L61E:													
Lester----------	55	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Metea----------	25	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	2.0-5.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37			
Terril----------	10	0-24	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		57-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L61E:													
Hamel	5	0-22	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton	5	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
		32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		40-80	20-30	1.34-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L62B:													
Koronis	55	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28			
Kingsley	20	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Malardi	20	0-9	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Forestcity	5	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.2-0.5	.24	.24			
L62C2:													
Koronis, eroded	40	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28			
Kingsley, eroded	25	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	1.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Malardi, eroded	25	0-9	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L62C2:													
Forestcity----------	10	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			
L62D2:													
Koronis, eroded-------	40	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28			
Kingsley, eroded------	25	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	1.0-4.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Malardi, eroded-------	25	0-9	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Forestcity----------	10	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			
L62E:													
Koronis----------	40	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28			
Kingsley----------	25	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
Malardi----------	25	0-9	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	4.0-8.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Forestcity----------	10	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	86
		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L64A:													
Tadkee----------	50	0-6	2-12	1.20-1.60	6-20	0.10-0.12	0.0-2.9	4.0-10	.17	.17	5	2	134
		6-34	0-10	1.45-1.60	6-20	0.05-0.12	0.0-2.9	0.1-0.5	.17	.17			
		34-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Tadkee, depressional--	36	0-6	2-12	0.25-0.45	0.2-6	0.35-0.45	0.0-2.9	15-30	.10	.10	5	2	134
		6-27	0-10	1.45-1.60	6-20	0.05-0.12	0.0-2.9	0.1-0.5	.17	.17			
		27-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Better drained soil---	8	0-6	3-6	1.50-1.55	6-20	0.08-0.12	0.0-2.9	1.0-4.0	.17	.17	5	2	134
		6-25	2-6	1.50-1.55	6-20	0.07-0.11	0.0-2.9	0.5-1.0	.17	.17			
		25-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Granby----------	4	0-12	2-14	1.20-1.60	6-20	0.10-0.12	0.0-2.9	4.0-10	.17	.17	5	2	134
		12-24	0-14	1.45-1.60	6-20	0.05-0.12	0.0-2.9	0.0-0.5	.17	.17			
		24-60	0-10	1.45-1.60	6-20	0.05-0.09	0.0-2.9	0.0-0.5	.17	.17			
Less sandy soil-------	2	0-4	2-12	1.20-1.60	6-20	0.10-0.12	0.0-2.9	4.0-10	.17	.17	5	2	134
		4-20	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		20-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L70C2:													
Lester, eroded--------	60	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Malardi, eroded-------	25	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Terril----------	12	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	3	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L70D2:													
Lester, eroded--------	55	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Malardi, eroded-------	25	0-9	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Terril----------	12	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	5	0-23	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		23-38	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		38-50	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.8-2.5	.32	.32			
		50-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	3	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L70E:													
Lester----------	55	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Malardi----------	25	0-9	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	4.0-8.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Terril----------	10	0-24	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		57-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	5	0-22	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L70E:													
Ridgeton----------	5	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
		32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L71C:													
Metea----------	80	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37			
Lester----------	15	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Moon----------	5	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37			
L72A:													
Lundlake, depressional	90	0-20	20-27	1.20-1.45	0.2-2	0.17-0.22	3.0-5.9	5.0-12	.28	.28	5	6	48
		20-46	20-30	1.20-1.45	0.2-2	0.17-0.22	3.0-5.9	2.0-5.0	.28	.28			
		46-54	16-27	1.30-1.50	0.6-2	0.15-0.19	0.0-2.9	0.0-1.0	.28	.28			
		54-60	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			
Forestcity----------	10	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	2.0-5.0	.20	.20	5	3	86
		22-43	18-28	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-8.0	.32	.32			
		43-60	12-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.0-1.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			
L110E:													
Lester----------	50	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	30	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
		32-40	22-30	1.45-1.70	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		40-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cokato----------	10	0-16	22-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.28	.28	5	6	48
		16-30	25-35	1.40-1.50	0.6-2	0.15-0.19	3.0-5.9	1.0-2.0	.37	.37			
		30-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L110E:													
Belview----------	6	0-9	18-27	1.35-1.45	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.28	.28	5	4L	86
		9-50	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		50-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	2	0-22	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	2	0-24	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	22-30	1.45-1.70	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		57-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L110F:													
Lester----------	55	0-6	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		6-25	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		25-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton----------	30	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
		32-40	22-30	1.45-1.70	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		40-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cokato----------	8	0-16	22-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.28	.28	5	6	48
		16-30	25-35	1.40-1.50	0.6-2	0.15-0.19	3.0-5.9	1.0-2.0	.37	.37			
		30-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Belview----------	4	0-9	18-27	1.35-1.45	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.28	.28	5	4L	86
		9-50	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		50-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	2	0-24	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	22-30	1.45-1.70	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		57-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel----------	1	0-22	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L131A:													
Litchfield----------	85	0-20	5-10	1.30-1.50	6-20	0.10-0.12	0.0-2.9	1.5-3.0	.17	.17	4	2	134
		20-33	5-10	1.40-1.65	2-6	0.07-0.16	0.0-2.9	0.5-1.0	.17	.17			
		33-40	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	0.2-0.8	.32	.32			
		40-80	1-8	1.45-1.65	6-20	0.08-0.10	0.0-2.9	0.1-0.5	.17	.17			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L131A:													
Darfur----------	10	0-16	13-16	1.30-1.50	0.6-6	0.15-0.17	0.0-2.9	4.0-6.0	.20	.20	4	3	86
		16-32	10-23	1.35-1.50	2-6	0.15-0.17	0.0-2.9	0.2-0.8	.20	.20			
		32-80	2-12	1.45-1.60	2-20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.20			
Crowfork----------	5	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L132A:													
Hamel----------	50	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Glencoe, depressional	30	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
		13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel, overwash-------	15	0-13	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	3.0-5.0	.28	.28	5	6	48
		13-29	20-30	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28			
		29-50	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		50-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Terril----------	5	0-27	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
M-W.													
Water, miscellaneous													
U1A.													
Urban land-Udorthents, wet substratum													
U2A.													
Udorthents, wet substratum													
U3B.													
Udorthents (cut and fill land)													

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Clay	Moist bulk density	Permea-bility	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
U4A. Urban land-Udipsamments (cut and fill land)													
U5A. Urban land-Udorthents, wet substratum													
U6B. Urban land-Udorthents (cut and fill land)													
W. Water													

Table 19.--Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated)

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D1B:						
Anoka, terrace-------	55	0-10	2.0-8.0	5.1-6.5	---	---
		10-60	1.0-4.0	5.1-7.3	---	---
Zimmerman, terrace---	40	0-9	2.0-5.0	5.1-6.5	---	---
		9-60	1.0-6.0	5.1-7.3	---	---
Kost----------	5	0-14	3.0-10	5.1-7.3	---	---
		14-33	0.0-4.0	5.1-7.3	---	---
		33-60	0.0-4.0	5.6-7.3	---	---
D1C:						
Anoka, terrace-------	45	0-10	2.0-8.0	5.1-6.5	---	---
		10-60	1.0-4.0	5.1-7.3	---	---
Zimmerman, terrace---	45	0-9	2.0-5.0	5.1-6.5	---	---
		9-60	1.0-6.0	5.1-7.3	---	---
Kost----------	10	0-14	3.0-10	5.1-7.3	---	---
		14-33	0.0-4.0	5.1-7.3	---	---
		33-60	0.0-4.0	5.6-7.3	---	---
D2A:						
Elkriver, rarely flooded----------	85	0-10	6.0-19	5.1-7.3	---	---
		10-35	6.0-19	5.1-7.3	---	---
		35-39	4.0-15	5.6-7.8	0-8	---
		39-80	0.0-6.0	5.6-7.8	0-8	---
Mosford, rarely flooded----------	10	0-11	7.0-19	5.1-7.3	---	---
		11-16	4.0-15	5.1-7.3	---	---
		16-57	1.0-2.0	5.1-7.3	---	---
		57-80	1.0-2.0	5.1-7.8	0-15	---
Elkriver, occasionally flooded	5	0-10	6.0-19	5.1-7.3	---	---
		10-26	6.0-19	5.1-7.3	---	---
		26-32	4.0-15	5.6-7.8	0-8	---
		32-80	0.0-6.0	5.6-7.8	0-8	---
D3A:						
Elkriver, occasionally flooded	80	0-10	6.0-19	5.1-7.3	---	---
		10-26	6.0-19	5.1-7.3	---	---
		26-32	4.0-15	5.6-7.8	0-8	---
		32-80	0.0-6.0	5.6-7.8	0-8	---
Fordum, frequently flooded----------	15	0-7	10-35	5.1-7.3	---	---
		7-28	3.0-20	5.1-7.3	---	---
		28-80	2.0-6.0	5.6-7.3	---	---
Winterfield, occasionally flooded	5	0-8	2.0-15	5.6-7.3	---	---
		8-20	1.0-10	5.6-7.3	---	---
		20-80	1.0-5.0	5.6-7.3	---	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D4A:						
Dorset	90	0-12	10-23	5.6-7.3	---	---
		12-20	7.0-17	5.6-7.3	---	---
		20-27	3.0-8.0	6.6-8.4	0-30	---
		27-60	0.0-5.0	7.4-8.4	5-15	---
Verndale, acid substratum	8	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
Almora	2	0-10	12-20	5.6-7.3	---	---
		10-14	8.0-14	5.6-7.3	---	---
		14-36	10-17	5.6-7.3	---	---
		36-41	2.0-7.0	5.6-7.8	0-5	---
		41-80	1.0-3.0	7.4-8.4	5-30	---
D4B:						
Dorset	85	0-12	10-23	5.6-7.3	---	---
		12-20	7.0-17	5.6-7.3	---	---
		20-27	3.0-8.0	6.6-8.4	0-30	---
		27-60	0.0-5.0	7.4-8.4	5-15	---
Verndale, acid substratum	10	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
Almora	5	0-10	12-20	5.6-7.3	---	---
		10-14	8.0-14	5.6-7.3	---	---
		14-36	10-17	5.6-7.3	---	---
		36-41	2.0-7.0	5.6-7.8	0-5	---
		41-80	1.0-3.0	7.4-8.4	5-30	---
D4C:						
Dorset	75	0-11	10-23	5.6-7.3	---	---
		11-19	7.0-17	5.6-7.3	---	---
		19-32	3.0-8.0	6.6-8.4	0-30	---
		32-80	0.0-5.0	7.4-8.4	5-15	---
Verndale, acid substratum	15	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
Almora	10	0-10	12-20	5.6-7.3	---	---
		10-14	8.0-14	5.6-7.3	---	---
		14-36	10-17	5.6-7.3	---	---
		36-41	2.0-7.0	5.6-7.8	0-5	---
		41-80	1.0-3.0	7.4-8.4	5-30	---
D5B:						
Dorset	65	0-11	10-23	5.6-7.3	---	---
		11-19	7.0-17	5.6-7.3	---	---
		19-32	3.0-8.0	6.6-8.4	0-30	---
		32-80	0.0-5.0	7.4-8.4	5-15	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D5B:						
Two Inlets	25	0-9	2.0-8.0	5.6-7.3	---	---
		9-19	2.0-9.0	6.1-7.3	---	---
		19-80	0.0-2.0	7.4-8.4	5-30	---
Verndale, acid substratum	5	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
Southhaven	5	0-48	15-34	5.1-7.3	---	---
		48-62	7.0-22	5.1-7.3	---	---
		62-66	2.0-4.0	5.1-7.3	---	---
		66-80	1.0-3.0	5.6-7.8	0-10	---
D5C:						
Dorset	55	0-11	10-23	5.6-7.3	---	---
		11-19	7.0-17	5.6-7.3	---	---
		19-32	3.0-8.0	6.6-8.4	0-30	---
		32-80	0.0-5.0	7.4-8.4	5-15	---
Two Inlets	30	0-9	2.0-8.0	5.6-7.3	---	---
		9-19	2.0-9.0	6.1-7.3	---	---
		19-80	0.0-2.0	7.4-8.4	5-30	---
Southhaven	10	0-48	15-34	5.1-7.3	---	---
		48-62	7.0-22	5.1-7.3	---	---
		62-66	2.0-4.0	5.1-7.3	---	---
		66-80	1.0-3.0	5.6-7.8	0-10	---
Verndale, acid substratum	5	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
D5D:						
Dorset	50	0-9	10-23	5.6-7.3	---	---
		9-14	7.0-17	5.6-7.3	---	---
		14-25	3.0-8.0	6.6-8.4	0-30	---
		25-80	0.0-5.0	7.4-8.4	5-15	---
Two Inlets	35	0-9	2.0-8.0	5.6-7.3	---	---
		9-19	2.0-9.0	6.1-7.3	---	---
		19-80	0.0-2.0	7.4-8.4	5-30	---
Southhaven	10	0-48	15-34	5.1-7.3	---	---
		48-62	7.0-22	5.1-7.3	---	---
		62-66	2.0-4.0	5.1-7.3	---	---
		66-80	1.0-3.0	5.6-7.8	0-10	---
Verndale, acid substratum	5	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D6A:						
Verndale, acid substratum----------	90	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
Dorset----------	7	0-12	10-23	5.6-7.3	---	---
		12-20	7.0-17	5.6-7.3	---	---
		20-27	3.0-8.0	6.6-8.4	0-30	---
		27-60	0.0-5.0	7.4-8.4	5-15	---
Hubbard----------	3	0-20	6.0-16	5.1-7.3	---	---
		20-32	1.0-4.0	5.1-7.3	---	---
		32-80	0.0-4.0	5.6-7.8	0-15	---
D6B:						
Verndale, acid substratum----------	85	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
Dorset----------	10	0-12	10-23	5.6-7.3	---	---
		12-20	7.0-17	5.6-7.3	---	---
		20-27	3.0-8.0	6.6-8.4	0-30	---
		27-60	0.0-5.0	7.4-8.4	5-15	---
Hubbard----------	5	0-18	6.0-16	5.1-7.3	---	---
		18-23	1.0-4.0	5.1-7.3	---	---
		23-80	0.0-4.0	5.6-7.8	0-15	---
D6C:						
Verndale, acid substratum----------	80	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	0.0-3.5	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
Dorset----------	15	0-11	10-23	5.6-7.3	---	---
		11-19	7.0-17	5.6-7.3	---	---
		19-32	3.0-8.0	6.6-8.4	0-30	---
		32-80	0.0-5.0	7.4-8.4	5-15	---
Hubbard----------	5	0-12	6.0-16	5.1-7.3	---	---
		12-33	1.0-3.0	5.1-7.3	---	---
		33-80	0.0-4.0	5.6-7.8	0-15	---
D7A:						
Hubbard----------	95	0-20	6.0-16	5.1-7.3	---	---
		20-32	1.0-4.0	5.1-7.3	---	---
		32-80	0.0-4.0	5.6-7.8	0-15	---
Mosford----------	5	0-13	7.0-9.0	5.1-7.3	---	---
		13-16	4.0-22	5.1-7.3	---	---
		16-35	1.0-3.0	5.1-7.3	---	---
		35-80	0.0-2.0	5.1-7.8	0-15	---
D7B:						
Hubbard----------	90	0-18	6.0-16	5.1-7.3	---	---
		18-23	1.0-4.0	5.1-7.3	---	---
		23-80	0.0-4.0	5.6-7.8	0-15	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D7B:						
Mosford	10	0-13	7.0-9.0	5.1-7.3	---	---
		13-16	4.0-22	5.1-7.3	---	---
		16-35	1.0-3.0	5.1-7.3	---	---
		35-80	0.0-2.0	5.1-7.8	0-15	---
D7C:						
Hubbard	80	0-12	6.0-16	5.1-7.3	---	---
		12-33	1.0-4.0	5.1-7.3	---	---
		33-80	0.0-4.0	5.6-7.8	0-15	---
Sandberg	10	0-14	2.0-12	5.6-7.8	0-5	---
		14-32	1.0-6.0	6.1-7.8	0-5	---
		32-80	1.0-4.0	7.4-8.4	5-10	---
Mosford	10	0-13	7.0-9.0	5.1-7.3	---	---
		13-16	4.0-22	5.1-7.3	---	---
		16-35	1.0-3.0	5.1-7.3	---	---
		35-80	0.0-2.0	5.1-7.8	0-15	---
D8B:						
Sandberg	95	0-14	2.0-12	5.6-7.8	0-5	---
		14-32	1.0-6.0	6.1-7.8	0-5	---
		32-80	1.0-4.0	7.4-8.4	5-10	---
Arvilla, MAP >25	5	0-14	5.0-20	6.1-7.3	---	---
		14-17	5.0-15	6.1-7.3	---	---
		17-80	1.0-5.0	7.4-7.8	5-20	---
D8C:						
Sandberg	80	0-14	2.0-12	5.6-7.8	0-5	---
		14-32	1.0-6.0	6.1-7.8	0-5	---
		32-80	1.0-4.0	7.4-8.4	5-10	---
Corliss	15	0-7	3.0-12	6.1-7.8	0-15	---
		7-28	1.0-6.0	6.1-7.8	0-15	---
		28-80	0.0-3.0	7.4-8.4	5-30	---
Southhaven	5	0-48	15-34	5.1-7.3	---	---
		48-62	7.0-22	5.1-7.3	---	---
		62-66	2.0-4.0	5.1-7.3	---	---
		66-80	1.0-3.0	5.6-7.8	0-10	---
D8D:						
Sandberg	80	0-11	2.0-12	5.6-7.8	0-5	---
		11-27	1.0-6.0	6.1-7.8	0-5	---
		27-80	1.0-4.0	7.4-8.4	5-10	---
Corliss	10	0-7	3.0-12	6.1-7.8	0-15	---
		7-28	1.0-6.0	6.1-7.8	0-15	---
		28-80	0.0-3.0	7.4-8.4	5-30	---
Southhaven	10	0-48	15-34	5.1-7.3	---	---
		48-62	7.0-22	5.1-7.3	---	---
		62-66	2.0-4.0	5.1-7.3	---	---
		66-80	1.0-3.0	5.6-7.8	0-10	---
D8E:						
Sandberg	80	0-11	2.0-12	5.6-7.8	0-5	---
		11-27	1.0-6.0	6.1-7.8	0-5	---
		27-80	1.0-4.0	7.4-8.4	5-10	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D8E:						
Corliss----------	10	0-7	3.0-12	6.1-7.8	0-15	---
		7-28	1.0-6.0	6.1-7.8	0-15	---
		28-80	0.0-3.0	7.4-8.4	5-30	---
Southhaven----------	10	0-48	15-34	5.1-7.3	---	---
		48-62	7.0-22	5.1-7.3	---	---
		62-66	2.0-4.0	5.1-7.3	---	---
		66-80	1.0-3.0	5.6-7.8	0-10	---
D10A:						
Forada----------	95	0-10	10-20	6.1-7.3	---	---
		10-33	5.0-15	6.1-7.3	---	---
		33-60	1.0-5.0	6.1-8.4	0-15	---
Depressional soil----	5	0-19	10-20	6.1-7.3	---	---
		19-38	5.0-15	6.1-7.3	---	---
		38-60	1.0-5.0	6.1-8.4	0-15	---
D11A:						
Lindaas----------	80	0-16	18-30	6.6-7.3	---	---
		16-32	20-40	6.6-7.3	---	---
		32-80	14-24	7.4-8.4	10-30	---
Lindaas, sandy substratum----------	10	0-14	18-30	6.6-7.3	---	---
		14-20	20-40	6.6-7.3	---	---
		20-62	14-24	7.4-8.4	10-30	---
		62-80	1.0-5.0	7.4-8.4	5-30	---
Depressional soil----	10	0-23	18-30	6.6-7.3	---	---
		23-30	20-40	6.6-7.3	---	---
		30-80	14-24	7.4-8.4	10-30	---
D12B:						
Bygland, MAP >25-----	70	0-9	15-35	6.1-7.3	---	---
		9-23	15-30	6.1-7.8	0-5	---
		23-27	10-25	7.4-8.4	5-20	---
		27-80	10-20	7.4-8.4	5-15	---
Bygland, sandy substratum----------	15	0-14	15-35	6.1-7.3	---	---
		14-26	15-30	6.1-7.8	0-5	---
		26-38	10-25	7.4-8.4	5-20	---
		38-63	10-20	7.4-8.4	5-15	---
		63-80	1.0-5.0	7.4-8.4	5-30	---
Lindaas----------	10	0-16	18-30	6.6-7.3	---	---
		16-32	20-40	6.6-7.3	---	---
		32-80	14-24	7.4-8.4	10-30	---
Depressional soil----	5	0-23	18-30	6.6-7.3	---	---
		23-30	20-40	6.6-7.3	---	---
		30-80	14-24	7.4-8.4	10-30	---
D12C2:						
Bygland, MAP >25-----	70	0-7	15-35	6.1-7.3	---	---
		7-20	15-30	6.1-7.8	0-5	---
		20-26	10-25	7.4-8.4	5-20	---
		26-80	10-20	7.4-8.4	5-15	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D12C2:						
Bygland, sandy substratum----------	15	0-14	15-35	6.1-7.3	---	---
		14-26	15-30	6.1-7.8	0-5	---
		26-38	10-25	7.4-8.4	5-20	---
		38-63	10-20	7.4-8.4	5-15	---
		63-80	1.0-5.0	7.4-8.4	5-30	---
Lindaas----------	10	0-16	18-30	6.6-7.3	---	---
		16-32	20-40	6.6-7.3	---	---
		32-80	14-24	7.4-8.4	10-30	---
Depressional soil----	5	0-23	18-30	6.6-7.3	---	---
		23-30	20-40	6.6-7.3	---	---
		30-80	14-24	7.4-8.4	10-30	---
D13A:						
Langola, terrace-----	85	0-15	3.0-14	5.1-6.5	---	---
		15-31	1.0-5.0	5.1-6.5	---	---
		31-39	4.0-11	5.1-6.5	---	---
		39-43	2.0-10	5.6-7.3	---	---
		43-60	2.0-10	5.6-7.3	---	---
Duelm----------	10	0-16	5.0-18	5.6-7.3	---	---
		16-30	0.0-4.0	5.1-7.3	---	---
		30-80	0.0-5.0	5.6-7.8	0-15	---
Hubbard----------	5	0-20	6.0-16	5.1-7.3	---	---
		20-32	1.0-4.0	5.1-7.3	---	---
		32-80	0.0-4.0	5.6-7.8	0-15	---
D13B:						
Langola, terrace-----	85	0-15	3.0-14	5.1-6.5	---	---
		15-31	1.0-5.0	5.1-6.5	---	---
		31-39	4.0-11	5.1-6.5	---	---
		39-43	2.0-10	5.6-7.3	---	---
		43-60	2.0-10	5.6-7.3	---	---
Hubbard----------	10	0-18	6.0-16	5.1-7.3	---	---
		18-23	1.0-4.0	5.1-7.3	---	---
		23-80	0.0-4.0	5.6-7.8	0-15	---
Duelm----------	5	0-16	5.0-18	5.6-7.3	---	---
		16-30	0.0-4.0	5.1-7.3	---	---
		30-80	0.0-5.0	5.6-7.8	0-15	---
D15A:						
Seelyeville, drained	65	0-10	140-200	5.1-7.3	---	---
		10-60	140-200	5.1-7.3	---	---
Markey, drained------	25	0-28	110-170	4.5-7.3	---	---
		28-32	2.0-13	5.6-7.3	---	---
		32-80	1.0-3.0	5.6-7.3	---	---
Mineral soil, drained	10	0-18	10-25	5.6-7.3	---	---
		18-29	2.0-10	5.1-6.5	---	---
		29-80	1.0-5.0	5.6-7.3	---	---
D16A:						
Seelyeville, ponded--	45	0-15	140-200	5.1-7.3	---	---
		15-80	140-200	5.1-7.3	---	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D16A:						
Markey, ponded-------	45	0-27	110-170	4.5-7.3	---	---
		27-32	2.0-13	5.6-7.3	---	---
		32-80	1.0-3.0	5.6-7.3	---	---
Mineral soil, ponded	10	0-14	10-25	5.6-7.3	---	---
		14-34	2.0-10	5.1-6.5	---	---
		34-80	1.0-5.0	5.6-7.3	---	---
D17A:						
Duelm----------	90	0-16	5.0-18	5.6-7.3	---	---
		16-30	0.0-4.0	5.1-7.3	---	---
		30-80	0.0-5.0	5.6-7.8	0-15	---
Isan----------	8	0-14	10-25	5.6-7.3	---	---
		14-34	2.0-10	5.1-6.5	---	---
		34-80	1.0-5.0	5.6-7.3	---	---
Hubbard----------	2	0-18	6.0-16	5.1-7.3	---	---
		18-23	1.0-4.0	5.1-7.3	---	---
		23-80	0.0-4.0	5.6-7.8	0-15	---
D18B:						
Braham, terrace------	85	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-42	7.0-21	5.1-7.3	---	---
		42-60	7.0-21	7.4-8.4	10-20	0-1
Duelm----------	15	0-16	5.0-18	5.6-7.3	---	---
		16-30	0.0-4.0	5.1-7.3	---	---
		30-80	0.0-5.0	5.6-7.8	0-15	---
D19A:						
Fordum, frequently flooded----------	65	0-7	10-35	5.1-7.3	---	---
		7-28	3.0-20	5.1-7.3	---	---
		28-80	2.0-6.0	5.6-7.3	---	---
Winterfield, frequently flooded--	25	0-8	2.0-15	5.6-7.3	---	---
		8-20	1.0-10	5.6-7.3	---	---
		20-80	1.0-5.0	5.6-7.3	---	---
Fordum, occasionally flooded----------	10	0-9	10-45	5.1-7.3	---	---
		9-38	3.0-20	5.1-7.3	---	---
		38-80	2.0-6.0	5.6-7.3	---	---
D20A:						
Isan----------	85	0-14	10-25	5.6-7.3	---	---
		14-34	2.0-10	5.1-6.5	---	---
		34-80	1.0-5.0	5.6-7.3	---	---
Isan, depressional---	10	0-14	10-25	5.6-7.3	---	---
		14-34	2.0-10	5.1-6.5	---	---
		34-80	1.0-5.0	5.6-7.3	---	---
Duelm----------	5	0-16	5.0-18	5.6-7.3	---	---
		16-30	0.0-4.0	5.1-7.3	---	---
		30-80	0.0-5.0	5.6-7.8	0-15	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D21A:						
Isan, depressional---	85	0-14	10-25	5.6-7.3	---	---
		14-34	2.0-10	5.1-6.5	---	---
		34-80	1.0-5.0	5.6-7.3	---	---
Isan----------	15	0-14	10-25	5.6-7.3	---	---
		14-34	2.0-10	5.1-6.5	---	---
		34-80	1.0-5.0	5.6-7.3	---	---
D23A:						
Southhaven----------	90	0-48	15-34	5.1-7.3	---	---
		48-62	7.0-22	5.1-7.3	---	---
		62-66	2.0-4.0	5.1-7.3	---	---
		66-80	1.0-3.0	5.6-7.8	0-10	---
Dorset----------	5	0-11	10-23	5.6-7.3	---	---
		11-19	7.0-17	5.6-7.3	---	---
		19-32	3.0-8.0	6.6-8.4	0-30	---
		32-80	0.0-5.0	7.4-8.4	5-15	---
Mosford----------	5	0-13	7.0-9.0	5.1-7.3	---	---
		13-16	4.0-22	5.1-7.3	---	---
		16-35	1.0-3.0	5.1-7.3	---	---
		35-80	0.0-2.0	5.1-7.8	0-15	---
D24A:						
Sedgeville, occasionally flooded	85	0-15	10-45	6.1-7.8	0-20	---
		15-45	5.0-20	6.1-7.8	0-20	---
		45-80	2.0-5.0	6.6-8.4	0-20	---
Elkriver, occasionally flooded	15	0-10	6.0-19	5.1-7.3	---	---
		10-26	6.0-19	5.1-7.3	---	---
		26-32	4.0-15	5.6-7.8	0-8	---
		32-80	0.0-6.0	5.6-7.8	0-8	---
D25A:						
Soderville, terrace--	90	0-9	1.0-8.0	5.1-6.5	---	---
		9-24	1.0-6.0	5.1-6.5	---	---
		24-31	2.0-7.0	5.1-6.5	---	---
		31-60	1.0-3.0	5.1-6.5	---	---
Forada----------	10	0-10	10-20	6.1-7.3	---	---
		10-33	5.0-15	6.1-7.3	---	---
		33-60	1.0-5.0	6.1-8.4	0-15	---
D26A:						
Foldahl, MAP >25-----	90	0-16	2.0-13	5.6-6.6	---	---
		16-31	1.0-5.0	5.6-6.6	---	---
		31-40	7.0-21	6.1-7.3	---	---
		40-60	7.0-21	7.4-8.4	10-20	0-1
Hubbard----------	5	0-20	6.0-16	5.1-7.3	---	---
		20-32	1.0-4.0	5.1-7.3	---	---
		32-80	0.0-4.0	5.6-7.8	0-15	---
Isan----------	5	0-14	10-25	5.6-7.3	---	---
		14-34	2.0-10	5.1-6.5	---	---
		34-80	1.0-5.0	5.6-7.3	---	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D27A:						
Dorset, loamy substratum----------	80	0-12	10-23	5.6-7.3	---	---
		12-20	7.0-17	5.6-7.3	---	---
		20-60	3.0-8.0	6.6-8.4	0-30	---
		60-80	2.0-15	6.6-7.8	0-20	---
Dorset----------	15	0-12	10-23	5.6-7.3	---	---
		12-20	7.0-17	5.6-7.3	---	---
		20-27	3.0-8.0	6.6-8.4	0-30	---
		27-60	0.0-5.0	7.4-8.4	5-15	---
Southhaven----------	5	0-48	15-34	5.1-7.3	---	---
		48-62	7.0-22	5.1-7.3	---	---
		62-66	2.0-4.0	5.1-7.3	---	---
		66-80	1.0-3.0	5.6-7.8	0-10	---
D28B:						
Urban land----------	75	---	---	---	---	---
Bygland, MAP >25-----	20	0-9	15-35	6.1-7.3	---	---
		9-23	15-30	6.1-7.8	0-5	---
		23-27	10-25	7.4-8.4	5-20	---
		27-80	10-20	7.4-8.4	5-15	---
Bygland, sandy substratum----------	5	0-14	15-35	6.1-7.3	---	---
		14-26	15-30	6.1-7.8	0-5	---
		26-38	10-25	7.4-8.4	5-20	---
		38-63	10-20	7.4-8.4	5-15	---
		63-80	1.0-5.0	7.4-8.4	5-30	---
D29B:						
Urban land----------	70	---	---	---	---	---
Hubbard, bedrock substratum----------	20	0-18	6.0-16	5.1-7.3	---	---
		18-23	1.0-4.0	5.1-7.3	---	---
		23-60	0.0-4.0	5.6-7.8	0-15	---
		60-80	---	---	---	---
Hubbard----------	5	0-18	6.0-16	5.1-7.3	---	---
		18-23	1.0-4.0	5.1-7.3	---	---
		23-80	0.0-4.0	5.6-7.8	0-15	---
Mosford----------	5	0-13	7.0-9.0	5.1-7.3	---	---
		13-16	4.0-22	5.1-7.3	---	---
		16-35	1.0-3.0	5.1-7.3	---	---
		35-80	0.0-2.0	5.1-7.8	0-15	---
D30A:						
Seelyeville, surface drained----------	45	0-10	140-200	5.1-7.3	---	---
		10-80	140-200	5.1-7.3	---	---
Markey, surface drained----------	45	0-36	110-170	4.5-7.3	---	---
		36-42	2.0-13	5.6-7.3	---	---
		42-80	1.0-3.0	5.6-7.3	---	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D30A:						
Mineral soil, surface drained	10	0-14	10-25	5.6-7.3	---	---
		14-34	2.0-10	5.1-6.5	---	---
		34-80	1.0-5.0	5.6-7.3	---	---
D31A:						
Urban land	70	---	---	---	---	---
Duelm	20	0-16	5.0-18	5.6-7.3	---	---
		16-30	0.0-4.0	5.1-7.3	---	---
		30-80	0.0-5.0	5.6-7.8	0-15	---
Hubbard	5	0-18	6.0-16	5.1-7.3	---	---
		18-23	1.0-4.0	5.1-7.3	---	---
		23-80	0.0-4.0	5.6-7.8	0-15	---
Isan	5	0-14	10-25	5.6-7.3	---	---
		14-34	2.0-10	5.1-6.5	---	---
		34-80	1.0-5.0	5.6-7.3	---	---
D33B:						
Urban land	70	---	---	---	---	---
Dorset	20	0-12	10-23	5.6-7.3	---	---
		12-20	7.0-17	5.6-7.3	---	---
		20-27	3.0-8.0	6.6-8.4	0-30	---
		27-60	0.0-5.0	7.4-8.4	5-15	---
Verndale, acid substratum	5	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
Hubbard	5	0-20	6.0-16	5.1-7.3	---	---
		20-32	1.0-4.0	5.1-7.3	---	---
		32-80	0.0-4.0	5.6-7.8	0-15	---
D33C:						
Urban land	70	---	---	---	---	---
Dorset	20	0-11	10-23	5.6-7.3	---	---
		11-19	7.0-17	5.6-7.3	---	---
		19-32	3.0-8.0	6.6-8.4	0-30	---
		32-80	0.0-5.0	7.4-8.4	5-15	---
Verndale, acid substratum	5	0-10	7.0-15	5.1-7.3	---	---
		10-19	3.0-12	5.1-7.3	---	---
		19-28	2.0-4.0	5.1-7.3	---	---
		28-80	0.0-3.0	5.1-7.3	---	---
Hubbard	5	0-12	6.0-16	5.1-7.3	---	---
		12-33	1.0-4.0	5.1-7.3	---	---
		33-80	0.0-4.0	5.6-7.8	0-15	---
D34B:						
Urban land	75	---	---	---	---	---
Hubbard	20	0-18	6.0-16	5.1-7.3	---	---
		18-23	1.0-4.0	5.1-7.3	---	---
		23-80	0.0-4.0	5.6-7.8	0-15	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D34B:						
Mosford	5	0-13	7.0-9.0	5.1-7.3	---	---
		13-16	4.0-22	5.1-7.3	---	---
		16-35	1.0-3.0	5.1-7.3	---	---
		35-80	0.0-2.0	5.1-7.8	0-15	---
D35A:						
Elkriver, occasionally flooded	70	0-10	6.0-19	5.1-7.3	---	---
		10-26	6.0-19	5.1-7.3	---	---
		26-32	4.0-15	5.6-7.8	0-8	---
		32-80	0.0-6.0	5.6-7.8	0-8	---
Fordum, occasionally flooded	20	0-7	10-35	5.1-7.3	---	---
		7-28	3.0-20	5.1-7.3	---	---
		28-80	2.0-6.0	5.6-7.3	---	---
Udipsamments	5	---	---	---	---	---
Winterfield, occasionally flooded	5	0-8	2.0-15	5.6-7.3	---	---
		8-20	1.0-10	5.6-7.3	---	---
		20-80	1.0-5.0	5.6-7.3	---	---
D37F:						
Dorset, bedrock substratum	70	0-12	10-23	5.6-7.3	---	---
		12-20	7.0-17	5.6-7.3	---	---
		20-27	3.0-8.0	6.6-8.4	0-30	---
		27-60	0.0-5.0	7.4-8.4	5-15	---
		60-80	---	---	---	---
Rock outcrop	20	---	---	---	---	---
Hubbard, bedrock substratum	10	0-18	6.0-16	5.1-7.3	---	---
		18-23	1.0-4.0	5.1-7.3	---	---
		23-60	0.0-4.0	5.6-7.8	0-15	---
		60-80	---	---	---	---
D40A:						
Kratka, thick solum	80	0-10	3.0-12	5.6-7.3	---	---
		10-30	1.0-8.0	5.6-7.3	---	---
		30-60	4.0-21	6.1-7.3	0-5	0-1
Duelm	10	0-16	5.0-18	5.6-7.3	---	---
		16-30	0.0-4.0	5.1-7.3	---	---
		30-80	0.0-5.0	5.6-7.8	0-15	---
Foldahl, MAP >25	10	0-16	2.0-13	5.6-6.6	---	---
		16-31	1.0-5.0	5.6-6.6	---	---
		31-40	7.0-21	6.1-7.3	---	---
		40-60	7.0-21	7.4-8.4	10-20	0-1
D41C:						
Urban land	75	---	---	---	---	---
Waukon	20	0-8	6.0-20	6.1-7.3	---	---
		8-43	7.0-21	6.1-8.4	0-5	---
		43-80	7.0-18	7.4-8.4	5-30	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
D41C:						
Braham	5	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-42	7.0-21	5.1-7.3	---	---
		42-60	7.0-21	7.4-8.4	10-20	0-1
D43A:						
Gonvick, terrace	85	0-12	8.0-24	6.1-7.3	---	---
		12-30	12-24	6.6-7.3	0-5	---
		30-60	8.0-18	7.4-8.4	10-25	0-1
Braham	15	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-42	7.0-21	5.1-7.3	---	---
		42-60	7.0-21	7.4-8.4	10-20	0-1
GP.						
Pits, gravel-						
Udipsamments						
L2B:						
Malardi	65	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Hawick	25	0-7	1.0-10	6.1-7.8	0-10	---
		7-11	1.0-5.0	6.1-7.8	0-10	---
		11-80	1.0-5.0	7.4-8.4	5-15	---
Rasset	5	0-15	5.0-15	5.1-7.3	---	---
		15-28	7.0-13	5.1-7.3	---	---
		28-36	2.0-7.0	5.1-7.3	---	---
		36-80	1.0-3.0	5.1-7.8	0-20	---
Eden Prairie	5	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
L2C:						
Malardi	60	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Hawick	25	0-7	1.0-10	6.1-7.8	0-10	---
		7-11	1.0-5.0	6.1-7.8	0-10	---
		11-80	1.0-5.0	7.4-8.4	5-15	---
Tomall	10	0-33	17-32	6.1-7.3	---	---
		33-42	11-21	6.1-7.3	---	---
		42-47	1.0-5.0	6.1-7.3	---	---
		47-80	1.0-5.0	7.4-7.8	1-5	0-1
Crowfork	5	0-11	3.0-10	5.6-7.3	---	---
		11-20	1.0-7.0	5.1-6.5	---	---
		20-76	1.0-7.0	5.6-7.3	---	---
		76-80	1.0-4.0	6.1-7.8	0-15	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L2D:						
Malardi	55	0-9	6.0-19	5.6-7.3	---	---
		9-14	1.0-12	5.6-7.3	---	---
		14-21	0.0-6.0	5.6-7.3	---	---
		21-80	0.0-3.0	7.0-8.4	0-30	---
Hawick	30	0-7	1.0-10	6.1-7.8	0-10	---
		7-11	1.0-5.0	6.1-7.8	0-10	---
		11-80	1.0-5.0	7.4-8.4	5-15	---
Tomall	10	0-33	17-32	6.1-7.3	---	---
		33-42	11-21	6.1-7.3	---	---
		42-47	1.0-5.0	6.1-7.3	---	---
		47-80	1.0-5.0	7.4-7.8	1-5	0-1
Crowfork	5	0-11	3.0-10	5.6-7.3	---	---
		11-20	1.0-7.0	5.1-6.5	---	---
		20-76	1.0-7.0	5.6-7.3	---	---
		76-80	1.0-4.0	6.1-7.8	0-15	---
L2E:						
Malardi	55	0-9	6.0-19	5.6-7.3	---	---
		9-14	1.0-12	5.6-7.3	---	---
		14-21	0.0-6.0	5.6-7.3	---	---
		21-80	0.0-3.0	7.0-8.4	0-30	---
Hawick	30	0-7	1.0-10	6.1-7.8	0-10	---
		7-11	1.0-5.0	6.1-7.8	0-10	---
		11-80	1.0-5.0	7.4-8.4	5-15	---
Tomall	15	0-33	17-32	6.1-7.3	---	---
		33-42	11-21	6.1-7.3	---	---
		42-47	1.0-5.0	6.1-7.3	---	---
		47-80	1.0-5.0	7.4-7.8	1-5	0-1
L3A:						
Rasset	90	0-15	5.0-15	5.1-7.3	---	---
		15-28	7.0-13	5.1-7.3	---	---
		28-36	2.0-7.0	5.1-7.3	---	---
		36-80	1.0-3.0	5.1-7.8	0-20	---
Malardi	8	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Eden Prairie	2	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
L3B:						
Rasset	80	0-15	5.0-15	5.1-7.3	---	---
		15-28	7.0-13	5.1-7.3	---	---
		28-36	2.0-7.0	5.1-7.3	---	---
		36-80	1.0-3.0	5.1-7.8	0-20	---
Malardi	15	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L3B:						
Eden Prairie---------	5	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
L3C:						
Rasset----------	75	0-15	5.0-15	5.1-7.3	---	---
		15-28	7.0-13	5.1-7.3	---	---
		28-36	2.0-7.0	5.1-7.3	---	---
		36-80	1.0-3.0	5.1-7.8	0-20	---
Malardi----------	10	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Tomall----------	10	0-33	17-32	6.1-7.3	---	---
		33-42	11-21	6.1-7.3	---	---
		42-47	1.0-5.0	6.1-7.3	---	---
		47-80	1.0-5.0	7.4-7.8	1-5	0-1
Eden Prairie---------	5	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
L4B:						
Crowfork----------	90	0-11	3.0-10	5.6-7.3	---	---
		11-20	1.0-7.0	5.1-6.5	---	---
		20-76	1.0-7.0	5.6-7.3	---	---
		76-80	1.0-4.0	6.1-7.8	0-15	---
Eden Prairie---------	10	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
L4C:						
Crowfork----------	90	0-11	3.0-10	5.6-7.3	---	---
		11-20	1.0-7.0	5.1-6.5	---	---
		20-76	1.0-7.0	5.6-7.3	---	---
		76-80	1.0-4.0	6.1-7.8	0-15	---
Eden Prairie---------	10	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
L4D:						
Crowfork----------	85	0-11	3.0-10	5.6-7.3	---	---
		11-20	1.0-7.0	5.1-6.5	---	---
		20-76	1.0-7.0	5.6-7.3	---	---
		76-80	1.0-4.0	6.1-7.8	0-15	---
Eden Prairie---------	15	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L6A:						
Biscay	85	0-20	20-35	6.1-7.8	0-15	---
		20-28	12-25	6.6-7.8	0-15	---
		28-36	5.0-20	6.6-7.8	0-15	---
		36-60	1.0-5.0	7.4-8.4	5-30	---
Biscay, depressional	10	0-23	20-35	6.1-7.8	0-15	---
		23-28	12-25	6.6-7.8	0-15	---
		28-36	5.0-20	6.6-7.8	0-15	---
		36-60	1.0-5.0	7.4-8.4	5-30	---
Mayer	5	0-18	15-31	7.4-8.4	5-30	---
		18-33	13-27	7.4-8.4	5-30	---
		33-80	1.0-10	7.4-8.4	5-30	---
L7A:						
Biscay, depressional	80	0-23	20-35	6.1-7.8	0-15	---
		23-28	12-25	6.6-7.8	0-15	---
		28-36	5.0-20	6.6-7.8	0-15	---
		36-60	1.0-5.0	7.4-8.4	5-30	---
Biscay	15	0-20	20-35	6.1-7.8	0-15	---
		20-28	12-25	6.6-7.8	0-15	---
		28-36	5.0-20	6.6-7.8	0-15	---
		36-60	1.0-5.0	7.4-8.4	5-30	---
Mayer	5	0-18	15-31	7.4-8.4	5-30	---
		18-33	13-27	7.4-8.4	5-30	---
		33-80	1.0-10	7.4-8.4	5-30	---
L8A:						
Darfur	95	0-16	10-20	6.1-7.3	---	---
		16-32	5.0-15	6.6-7.3	---	---
		32-80	1.0-10	6.6-7.4	0-15	---
Dassel	5	0-14	10-40	5.6-7.3	---	---
		14-31	3.0-10	5.6-7.3	---	---
		31-80	1.0-5.0	6.1-7.8	0-5	---
L9A:						
Minnetonka	90	0-13	24-43	5.6-7.3	---	---
		13-35	21-47	5.6-7.3	---	---
		35-60	15-32	6.6-7.8	5-20	---
Depressional soil	10	0-16	24-43	5.6-7.3	---	---
		16-42	21-47	5.6-7.3	---	---
		42-60	15-32	6.6-7.8	5-20	---
L10B:						
Kasota	80	0-10	22-40	5.6-7.3	---	---
		10-28	21-47	5.6-6.5	---	---
		28-32	1.0-8.0	6.1-7.3	---	---
		32-60	1.0-4.0	7.4-8.4	5-25	---
Eden Prairie	10	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
Wet soil in swales	10	0-13	24-43	5.6-7.3	---	---
		13-35	21-47	5.6-7.3	---	---
		35-60	15-32	6.6-7.8	5-20	---
		60-80	1.0-5.0	7.4-8.4	5-30	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L11B:						
Grays	90	0-7	15-24	5.6-6.5	---	---
		7-25	15-22	5.6-7.3	---	---
		25-60	3.0-12	7.4-8.4	10-25	---
Kasota	5	0-10	22-40	5.6-7.3	---	---
		10-28	21-47	5.6-6.5	---	---
		28-32	1.0-8.0	6.1-7.3	---	---
		32-60	1.0-4.0	7.4-8.4	5-25	---
Crowfork	5	0-11	3.0-10	5.6-7.3	---	---
		11-20	1.0-7.0	5.1-6.5	---	---
		20-76	1.0-7.0	5.6-7.3	---	---
		76-80	1.0-4.0	6.1-7.8	0-15	---
L12A:						
Muskego, frequently flooded	30	0-9	140-180	5.6-7.3	---	---
		9-36	150-190	5.6-7.3	---	---
		36-60	10-45	7.4-8.4	10-80	---
Blue Earth, frequently flooded	30	0-50	30-70	7.4-8.4	5-20	---
		50-60	30-70	7.4-8.4	5-40	---
Houghton, frequently flooded	30	0-80	100-200	4.5-7.3	---	---
Oshawa, frequently flooded	10	0-12	19-41	7.4-7.8	5-15	---
		12-60	12-36	7.4-7.8	5-15	---
L13A:						
Klossner, drained	80	0-26	50-150	5.6-7.4	0-5	---
		26-36	35-65	6.1-7.4	0-5	---
		36-48	20-40	6.1-7.4	0-5	---
		48-80	5.0-25	6.1-8.4	0-20	0-1
Mineral soil, drained	15	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1
Houghton, drained	5	0-10	100-200	4.5-7.3	---	---
		10-80	100-200	4.5-7.3	---	---
L14A:						
Houghton, drained	80	0-10	100-200	4.5-7.3	---	---
		10-80	100-200	4.5-7.3	---	---
Klossner, drained	10	0-26	50-150	5.6-7.4	0-5	---
		26-36	35-65	6.1-7.4	0-5	---
		36-48	20-40	6.1-7.4	0-5	---
		48-80	5.0-25	6.1-8.4	0-20	0-1
Mineral soil, drained	10	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L15A:						
Klossner, ponded-----	30	0-26	50-150	5.6-7.4	0-5	---
		26-33	35-65	6.1-7.4	0-5	---
		33-40	20-40	6.1-7.4	0-5	---
		40-80	5.0-25	6.1-8.4	0-20	0-1
Okoboji, ponded------	30	0-10	35-50	6.1-7.8	0-15	---
		10-52	25-45	6.6-7.8	0-15	---
		52-60	18-28	6.6-7.8	0-30	---
Glencoe, ponded------	30	0-42	20-40	6.1-7.8	0-5	---
		42-50	15-30	6.6-7.8	0-5	---
		50-60	10-20	7.4-8.4	10-20	0-1
Houghton, ponded-----	10	0-80	100-200	4.5-7.3	---	---
L16A:						
Muskego, ponded------	30	0-9	140-180	5.6-7.3	---	---
		9-36	150-190	5.6-7.3	---	---
		36-60	10-45	7.4-8.4	10-80	---
Blue Earth, ponded---	30	0-50	30-70	7.4-8.4	5-20	---
		50-60	30-70	7.4-8.4	5-40	---
Houghton, ponded-----	30	0-80	100-200	4.5-7.3	---	---
Klossner, ponded-----	10	0-26	50-150	5.6-7.4	0-5	---
		26-33	35-65	6.1-7.4	0-5	---
		33-40	20-40	6.1-7.4	0-5	---
		40-80	5.0-25	6.1-8.4	0-20	0-1
L17B:						
Angus----------	50	0-8	10-24	5.6-7.3	---	---
		8-35	10-23	5.1-7.3	---	---
		35-40	8.0-18	6.1-7.8	0-20	---
		40-80	10-20	7.4-8.4	10-20	0-1
Malardi----------	30	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Moon----------	10	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-46	7.0-21	5.1-7.3	---	---
		46-60	7.0-21	7.4-8.4	10-20	0-1
Cordova----------	10	0-13	15-28	6.1-7.3	---	---
		13-33	15-25	5.1-6.5	---	---
		33-80	10-20	7.4-8.4	10-20	0-1
L18A:						
Shields----------	85	0-8	18-28	5.6-6.5	---	---
		8-41	21-34	5.6-6.5	---	---
		41-80	14-26	7.4-8.4	5-20	---
Lerdal----------	10	0-9	18-24	5.6-6.5	---	---
		9-42	19-30	4.5-6.0	---	---
		42-60	10-20	7.4-8.4	10-25	0-1
Mazaska----------	5	0-15	22-34	6.1-7.3	---	---
		15-42	19-29	4.5-6.5	---	---
		42-80	10-20	7.4-8.4	15-25	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L19B:						
Moon	85	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-46	7.0-21	5.1-7.3	---	---
		46-60	7.0-21	7.4-8.4	10-20	0-1
Finchford	15	0-18	5.0-15	6.1-7.3	---	---
		18-30	1.0-8.0	5.1-7.3	---	---
		30-60	1.0-5.0	5.1-7.3	---	---
L20B:						
Fedji, silty substratum	85	0-10	3.0-12	5.6-6.5	---	---
		10-30	1.0-8.0	6.1-7.3	---	---
		30-39	7.0-22	6.1-7.3	---	---
		39-60	4.0-19	7.4-8.4	8-25	---
Finchford	15	0-18	5.0-15	6.1-7.3	---	---
		18-30	1.0-8.0	5.1-7.3	---	---
		30-60	1.0-5.0	5.1-7.3	---	---
L21A:						
Canisteo	80	0-17	19-37	7.4-8.4	5-15	---
		17-36	6.0-23	7.4-8.4	15-25	---
		36-80	10-20	7.4-8.4	10-20	0-1
Cordova	15	0-13	15-28	6.1-7.3	---	---
		13-33	15-25	5.1-6.5	---	---
		33-80	10-20	7.4-8.4	10-20	0-1
Glencoe	5	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1
L22C2:						
Lester, eroded	70	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Angus	15	0-8	10-24	5.6-7.3	---	---
		8-35	10-23	5.1-7.3	---	---
		35-40	8.0-18	6.1-7.8	0-20	---
		40-80	10-20	7.4-8.4	10-20	0-1
Terril	12	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
Hamel	3	0-24	15-30	5.6-7.3	---	---
		24-46	15-30	5.6-7.3	---	---
		46-80	10-20	7.4-8.4	10-20	0-1
L22D2:						
Lester, eroded	80	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L22D2:						
Terril	10	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
Hamel	5	0-24	15-30	5.6-7.3	---	---
		24-46	15-30	5.6-7.3	---	---
		46-80	10-20	7.4-8.4	10-20	0-1
Ridgeton	5	0-23	20-25	6.1-7.3	---	---
		23-38	20-25	6.1-7.3	---	---
		38-50	15-25	6.1-7.3	---	---
		50-80	10-20	7.4-8.4	10-20	0-1
L22E:						
Lester, morainic	75	0-5	10-24	5.6-7.3	---	---
		5-34	10-23	5.1-7.3	---	---
		34-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Terril	15	0-24	20-25	6.1-7.3	---	---
		24-37	20-25	6.1-7.3	---	---
		37-57	15-25	6.1-7.3	---	---
		57-80	10-20	7.4-8.4	10-20	0-1
Hamel	5	0-22	15-30	5.6-7.3	---	---
		22-41	15-30	5.6-7.3	---	---
		41-80	10-20	7.4-8.4	10-20	0-1
Ridgeton	5	0-32	20-25	6.1-7.3	---	---
		32-40	15-25	6.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1
L22F:						
Lester, morainic	75	0-5	10-24	5.6-7.3	---	---
		5-34	10-23	5.1-7.3	---	---
		34-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Terril	10	0-24	20-25	6.1-7.3	---	---
		24-37	20-25	6.1-7.3	---	---
		37-57	15-25	6.1-7.3	---	---
		57-80	10-20	7.4-8.4	10-20	0-1
Ridgeton	10	0-32	20-25	6.1-7.3	---	---
		32-40	15-25	6.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1
Hamel	5	0-22	15-30	5.6-7.3	---	---
		22-41	15-30	5.6-7.3	---	---
		41-80	10-20	7.4-8.4	10-20	0-1
L23A:						
Cordova	85	0-13	15-28	6.1-7.3	---	---
		13-33	15-25	5.1-6.5	---	---
		33-80	10-20	7.4-8.4	10-20	0-1
Glencoe	10	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L23A:						
Nessel	5	0-6	10-24	5.6-7.3	---	---
		6-38	10-23	5.1-7.3	---	---
		38-80	10-20	7.4-8.4	10-20	0-1
L24A:						
Glencoe, depressional	90	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1
Cordova	10	0-13	15-28	6.1-7.3	---	---
		13-33	15-25	5.1-6.5	---	---
		33-80	10-20	7.4-8.4	10-20	0-1
L25A:						
Le Sueur	80	0-17	12-24	5.6-7.3	---	---
		17-36	11-25	5.1-7.3	---	---
		36-46	10-20	7.4-8.4	15-25	---
		46-80	10-20	7.4-8.4	10-20	0-1
Cordova	15	0-13	15-28	6.1-7.3	---	---
		13-33	15-25	5.1-6.5	---	---
		33-80	10-20	7.4-8.4	10-20	0-1
Angus	5	0-8	10-24	5.6-7.3	---	---
		8-35	10-23	5.1-7.3	---	---
		35-40	8.0-18	6.1-7.8	0-20	---
		40-80	10-20	7.4-8.4	10-20	0-1
L26A:						
Shorewood	85	0-17	30-45	5.6-7.3	---	---
		17-39	25-45	5.1-7.3	---	---
		39-60	10-20	7.4-8.4	10-20	0-1
Minnetonka	10	0-13	24-43	5.6-7.3	---	---
		13-35	21-47	5.6-7.3	---	---
		35-60	15-32	6.6-7.8	5-20	---
Good Thunder	5	0-15	30-45	5.6-7.3	---	---
		15-32	25-45	5.1-7.3	---	---
		32-80	15-25	7.4-8.4	10-20	---
L26B:						
Shorewood	90	0-17	30-45	5.6-7.3	---	---
		17-39	25-45	5.1-7.3	---	---
		39-60	10-20	7.4-8.4	10-20	0-1
Good Thunder	5	0-15	30-45	5.6-7.3	---	---
		15-32	25-45	5.1-7.3	---	---
		32-80	15-25	7.4-8.4	10-20	---
Minnetonka	5	0-13	24-43	5.6-7.3	---	---
		13-35	21-47	5.6-7.3	---	---
		35-60	15-32	6.6-7.8	5-20	---
L26C2:						
Shorewood, eroded	95	0-17	30-45	5.6-7.3	---	---
		17-39	25-45	5.1-7.3	---	---
		39-60	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L26C2:						
Minnetonka----------	5	0-13	24-43	5.6-7.3	---	---
		13-35	21-47	5.6-7.3	---	---
		35-60	15-32	6.6-7.8	5-20	---
L27A:						
Suckercreek, frequently flooded--	85	0-22	10-20	7.4-8.4	5-20	---
		22-80	1.0-10	7.4-8.4	5-25	---
Suckercreek, occasionally flooded	10	0-12	10-20	7.4-8.4	5-20	---
		12-80	1.0-10	7.4-8.4	5-25	---
Hanlon, occasionally flooded----------	5	0-40	15-20	6.1-7.3	---	---
		40-63	10-15	6.1-7.3	---	---
		63-70	5.0-10	5.6-7.3	---	---
		70-80	5.0-10	5.6-7.8	0-15	---
L28A:						
Suckercreek, occasionally flooded	80	0-12	10-20	7.4-8.4	5-20	---
		12-80	1.0-10	7.4-8.4	5-25	---
Suckercreek, frequently flooded--	10	0-22	10-20	7.4-8.4	5-20	---
		22-80	1.0-10	7.4-8.4	5-25	---
Hanlon, occasionally flooded----------	10	0-40	15-20	6.1-7.3	---	---
		40-63	10-15	6.1-7.3	---	---
		63-70	5.0-10	5.6-7.3	---	---
		70-80	5.0-10	5.6-7.8	0-15	---
L29A:						
Hanlon, occasionally flooded----------	80	0-40	15-20	6.1-7.3	---	---
		40-63	10-15	6.1-7.3	---	---
		63-70	5.0-10	5.6-7.3	---	---
		70-80	5.0-10	5.6-7.8	0-15	---
Suckercreek, occasionally flooded	10	0-12	10-20	7.4-8.4	5-20	---
		12-80	1.0-10	7.4-8.4	5-25	---
Suckercreek, frequently flooded--	10	0-22	10-20	7.4-8.4	5-20	---
		22-80	1.0-10	7.4-8.4	5-25	---
L30A:						
Medo, surface drained	65	0-27	40-100	6.1-7.8	0-5	---
		27-35	20-55	6.1-7.8	0-5	---
		35-39	8.0-19	6.1-7.8	0-5	---
		39-80	1.0-9.0	6.1-8.4	0-15	---
Medo, drained--------	20	0-27	40-100	6.1-7.8	0-5	---
		27-35	20-55	6.1-7.8	0-5	---
		35-39	8.0-19	6.1-7.8	0-5	---
		39-80	1.0-9.0	6.1-8.4	0-15	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L30A:						
Mineral soil, drained	15	0-23	10-40	5.6-7.3	---	---
		23-31	3.0-10	5.6-7.3	---	---
		31-60	1.0-5.0	6.1-7.8	0-5	---
L31A:						
Medo, ponded	30	0-20	40-100	6.1-7.8	0-5	---
		20-34	20-55	6.1-7.8	0-5	---
		34-60	1.0-9.0	6.1-8.4	0-15	---
Dassel, ponded	30	0-23	10-40	5.6-7.3	---	---
		23-31	3.0-10	5.6-7.3	---	---
		31-60	1.0-5.0	6.1-7.8	0-5	---
Biscay, ponded	30	0-24	20-35	6.1-7.8	0-10	---
		24-29	12-25	6.6-7.8	0-15	---
		29-60	1.0-5.0	7.4-8.4	5-30	---
Houghton, ponded	5	0-80	100-200	4.5-7.3	---	---
Muskego, ponded	5	0-9	140-180	5.6-7.3	---	---
		9-36	150-190	5.6-7.3	---	---
		36-60	10-45	7.4-8.4	10-80	---
L32D:						
Hawick	75	0-11	10-15	6.1-7.8	0-10	---
		11-15	1.0-5.0	6.1-7.8	0-10	---
		15-80	1.0-5.0	7.4-8.4	5-15	---
Crowfork	15	0-11	3.0-10	5.6-7.3	---	---
		11-19	1.0-7.0	5.1-6.5	---	---
		19-54	1.0-7.0	5.6-7.3	---	---
		54-60	1.0-4.0	6.1-7.8	0-15	---
Tomall	10	0-33	17-32	6.1-7.3	---	---
		33-42	11-21	6.1-7.3	---	---
		42-47	1.0-5.0	6.1-7.3	---	---
		47-80	1.0-5.0	7.4-7.8	1-5	0-1
L32F:						
Hawick	75	0-11	10-15	6.1-7.8	0-10	---
		11-15	1.0-5.0	6.1-7.8	0-10	---
		15-80	1.0-5.0	7.4-8.4	5-15	---
Crowfork	15	0-11	3.0-10	5.6-7.3	---	---
		11-19	1.0-7.0	5.1-6.5	---	---
		19-54	1.0-7.0	5.6-7.3	---	---
		54-60	1.0-4.0	6.1-7.8	0-15	---
Tomall	10	0-33	17-32	6.1-7.3	---	---
		33-42	11-21	6.1-7.3	---	---
		42-47	1.0-5.0	6.1-7.3	---	---
		47-80	1.0-5.0	7.4-7.8	1-5	0-1
L35A:						
Lerdal	80	0-13	14-22	5.6-6.5	---	---
		13-47	19-30	4.5-7.4	---	---
		47-60	10-20	7.4-8.4	10-25	0-1
Mazaska	10	0-15	22-34	6.1-7.3	---	---
		15-42	19-29	4.5-6.5	---	---
		42-80	10-20	7.4-8.4	15-25	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L35A:						
Cordova	5	0-13	15-28	6.1-7.3	---	---
		13-33	15-25	5.1-6.5	---	---
		33-80	10-20	7.4-8.4	10-20	0-1
Le Sueur	5	0-17	12-24	5.6-7.3	---	---
		17-36	11-25	5.1-7.3	---	---
		36-46	10-20	7.4-8.4	15-25	---
		46-80	10-20	7.4-8.4	10-20	0-1
L36A:						
Hamel, overwash	50	0-13	15-30	5.6-7.3	---	---
		13-29	15-30	5.6-7.3	---	---
		29-50	15-30	5.6-7.3	---	---
		50-80	10-20	7.4-8.4	10-20	0-1
Hamel	43	0-24	15-30	5.6-7.3	---	---
		24-46	15-30	5.6-7.3	---	---
		46-80	10-20	7.4-8.4	10-20	0-1
Terril	5	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
Glencoe	2	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1
L37B:						
Angus, morainic	80	0-8	10-24	5.6-7.3	---	---
		8-35	10-23	5.1-7.3	---	---
		35-40	8.0-18	6.1-7.8	0-20	---
		40-80	10-20	7.4-8.4	10-20	0-1
Angus, eroded	10	0-8	10-24	5.6-7.3	---	---
		8-35	10-23	5.1-7.3	---	---
		35-58	10-20	7.4-8.4	5-25	0-1
		58-80	10-20	7.4-8.4	10-20	0-1
Le Sueur	5	0-17	12-24	5.6-7.3	---	---
		17-36	11-25	5.1-7.3	---	---
		36-46	10-20	7.4-8.4	15-25	---
		46-80	10-20	7.4-8.4	10-20	0-1
Cordova	5	0-13	15-28	6.1-7.3	---	---
		13-33	15-25	5.1-6.5	---	---
		33-80	10-20	7.4-8.4	10-20	0-1
L38A:						
Rushriver, occasionally flooded	75	0-46	3.0-13	7.4-8.4	5-20	---
		46-80	3.0-13	7.4-8.4	5-20	---
Oshawa, frequently flooded	15	0-12	19-41	7.4-7.8	5-15	---
		12-60	12-36	7.4-7.8	5-15	---
Minneiska, occasionally flooded	5	0-10	5.0-20	7.4-8.4	10-20	---
		10-60	5.0-15	7.4-8.4	5-20	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L38A:						
Algansee, occasionally flooded	5	0-6	3.0-10	4.5-7.8	0-5	---
		6-60	1.0-4.0	4.5-7.8	0-10	---
L39A:						
Minneiska, occasionally flooded	70	0-10	5.0-20	7.4-8.4	10-20	---
		10-60	5.0-15	7.4-8.4	5-20	---
Rushriver, occasionally flooded	15	0-46	3.0-13	7.4-8.4	5-20	---
		46-80	3.0-13	7.4-8.4	5-20	---
Oshawa, frequently flooded	10	0-12	19-41	7.4-7.8	5-15	---
		12-60	12-36	7.4-7.8	5-15	---
Algansee, occasionally flooded	5	0-6	3.0-10	4.5-7.8	0-5	---
		6-60	1.0-4.0	4.5-7.8	0-10	---
L40B:						
Angus	45	0-8	10-24	5.6-7.3	---	---
		8-35	10-23	5.1-7.3	---	---
		35-40	8.0-18	6.1-7.8	0-20	---
		40-80	10-20	7.4-8.4	10-20	0-1
Kilkenny	40	0-11	20-30	5.6-7.3	---	---
		11-35	25-35	5.1-7.3	---	---
		35-80	10-20	7.4-8.4	10-20	0-1
Lerdal	10	0-8	18-24	5.6-6.5	---	---
		8-12	18-24	5.6-6.5	---	---
		12-41	19-30	4.5-6.0	---	---
		41-80	10-20	7.4-8.4	15-25	0-1
Mazaska	5	0-15	22-34	6.1-7.3	---	---
		15-42	19-29	4.5-6.5	---	---
		42-80	10-20	7.4-8.4	15-25	0-1
L41C2:						
Lester, eroded	45	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Kilkenny, eroded	40	0-9	20-30	5.6-7.3	---	---
		9-53	25-35	5.1-7.3	---	---
		53-80	10-20	7.4-8.4	10-20	0-1
Terril	10	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
Derrynane	5	0-19	25-40	6.1-7.3	---	---
		19-39	25-45	6.1-7.3	---	---
		39-65	20-30	6.1-7.3	---	---
		65-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L41D2:						
Lester, eroded-------	45	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Kilkenny, eroded-----	35	0-9	20-30	5.6-7.3	---	---
		9-53	25-35	5.1-7.3	---	---
		53-80	10-20	7.4-8.4	10-20	0-1
Terril----------	10	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
Derrynane----------	5	0-19	25-40	6.1-7.3	---	---
		19-39	25-45	6.1-7.3	---	---
		39-65	20-30	6.1-7.3	---	---
		65-80	10-20	7.4-8.4	10-20	0-1
Ridgeton----------	5	0-23	20-25	6.1-7.3	---	---
		23-38	20-25	6.1-7.3	---	---
		38-50	15-25	6.1-7.3	---	---
		50-80	10-20	7.4-8.4	10-20	0-1
L41E:						
Lester----------	45	0-5	10-24	5.6-7.3	---	---
		5-34	10-23	5.1-7.3	---	---
		34-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Kilkenny----------	40	0-7	20-30	5.6-7.3	---	---
		7-31	25-35	5.1-7.3	---	---
		31-80	10-20	7.4-8.4	10-20	0-1
Terril----------	5	0-24	20-25	6.1-7.3	---	---
		24-37	20-25	6.1-7.3	---	---
		37-57	15-25	6.1-7.3	---	---
		57-80	10-20	7.4-8.4	10-20	0-1
Derrynane----------	5	0-20	25-40	6.1-7.3	---	---
		20-40	25-45	6.1-7.3	---	---
		40-54	20-30	6.1-7.3	---	---
		54-80	10-20	7.4-8.4	10-20	0-1
Ridgeton----------	5	0-32	20-25	6.1-7.3	---	---
		32-40	15-25	6.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1
L41F:						
Lester----------	45	0-5	10-24	5.6-7.3	---	---
		5-34	10-23	5.1-7.3	---	---
		34-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Kilkenny----------	35	0-7	20-30	5.6-7.3	---	---
		7-31	25-35	5.1-7.3	---	---
		31-80	10-20	7.4-8.4	10-20	0-1
Ridgeton----------	10	0-32	20-25	6.1-7.3	---	---
		32-40	15-25	6.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbonate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L41F:						
Terril	5	0-24	20-25	6.1-7.3	---	---
		24-37	20-25	6.1-7.3	---	---
		37-57	15-25	6.1-7.3	---	---
		57-80	10-20	7.4-8.4	10-20	0-1
Derrynane	5	0-20	25-40	6.1-7.3	---	---
		20-40	25-45	6.1-7.3	---	---
		40-54	20-30	6.1-7.3	---	---
		54-80	10-20	7.4-8.4	10-20	0-1
L42B:						
Kingsley	70	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Gotham	25	0-9	2.0-6.0	5.6-7.3	---	---
		9-18	2.0-4.0	5.1-7.3	---	---
		18-40	2.0-6.0	5.1-7.3	---	---
		40-80	1.0-3.0	5.1-7.3	---	---
Grays	5	0-7	15-24	5.6-6.5	---	---
		7-25	15-22	5.6-7.3	---	---
		25-60	3.0-12	7.4-8.4	10-25	---
L42C:						
Kingsley	70	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Gotham	25	0-9	2.0-6.0	5.6-7.3	---	---
		9-18	2.0-4.0	5.1-7.3	---	---
		18-40	2.0-6.0	5.1-7.3	---	---
		40-80	1.0-3.0	5.1-7.3	---	---
Grays	5	0-7	15-24	5.6-6.5	---	---
		7-25	15-22	5.6-7.3	---	---
		25-60	3.0-12	7.4-8.4	10-25	---
L42D:						
Kingsley	70	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Gotham	25	0-9	2.0-6.0	5.6-7.3	---	---
		9-18	2.0-4.0	5.1-7.3	---	---
		18-40	2.0-6.0	5.1-7.3	---	---
		40-80	1.0-3.0	5.1-7.3	---	---
Grays	5	0-7	15-24	5.6-6.5	---	---
		7-25	15-22	5.6-7.3	---	---
		25-60	3.0-12	7.4-8.4	10-25	---
L42E:						
Kingsley	70	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L42E:						
Gotham	25	0-9	2.0-6.0	5.6-7.3	---	---
		9-18	2.0-4.0	5.1-7.3	---	---
		18-40	2.0-6.0	5.1-7.3	---	---
		40-80	1.0-3.0	5.1-7.3	---	---
Grays	5	0-7	15-24	5.6-6.5	---	---
		7-25	15-22	5.6-7.3	---	---
		25-60	3.0-12	7.4-8.4	10-25	---
L42F:						
Kingsley	70	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Gotham	25	0-9	2.0-6.0	5.6-7.3	---	---
		9-18	2.0-4.0	5.1-7.3	---	---
		18-40	2.0-6.0	5.1-7.3	---	---
		40-80	1.0-3.0	5.1-7.3	---	---
Grays	5	0-7	15-24	5.6-6.5	---	---
		7-25	15-22	5.6-7.3	---	---
		25-60	3.0-12	7.4-8.4	10-25	---
L43A:						
Brouillett, occasionally flooded	80	0-14	10-25	6.1-7.8	0-10	---
		14-36	15-30	6.1-7.8	0-10	---
		36-44	12-28	6.1-7.8	0-10	---
		44-60	5.0-15	6.1-8.4	0-10	---
Minneiska, occasionally flooded	10	0-10	5.0-20	7.4-8.4	10-20	---
		10-60	5.0-15	7.4-8.4	5-20	---
Rushriver, occasionally flooded	10	0-46	3.0-13	7.4-8.4	5-20	---
		46-80	3.0-13	7.4-8.4	5-20	---
L44A:						
Nessel	85	0-6	10-24	5.6-7.3	---	---
		6-38	10-23	5.1-7.3	---	---
		38-80	10-20	7.4-8.4	10-20	0-1
Cordova	10	0-13	15-28	6.1-7.3	---	---
		13-33	15-25	5.1-6.5	---	---
		33-80	10-20	7.4-8.4	10-20	0-1
Angus	5	0-8	10-24	5.6-7.3	---	---
		8-35	10-23	5.1-7.3	---	---
		35-40	8.0-18	6.1-7.8	0-20	---
		40-80	10-20	7.4-8.4	10-20	0-1
L45A:						
Dundas	65	0-9	9.0-22	5.6-7.3	---	---
		9-15	10-24	5.6-7.3	---	---
		15-40	11-26	5.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1
Cordova	25	0-13	15-28	6.1-7.3	---	---
		13-33	15-25	5.1-6.5	---	---
		33-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L45A:						
Nessel	5	0-6	10-24	5.6-7.3	---	---
		6-38	10-23	5.1-7.3	---	---
		38-80	10-20	7.4-8.4	10-20	0-1
Glencoe	5	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1
L46A:						
Tomall	80	0-33	17-32	6.1-7.3	---	---
		33-42	11-21	6.1-7.3	---	---
		42-47	1.0-5.0	6.1-7.3	---	---
		47-80	1.0-5.0	7.4-7.8	1-5	0-1
Rasset	10	0-15	5.0-15	5.1-7.3	---	---
		15-28	7.0-13	5.1-7.3	---	---
		28-36	2.0-7.0	5.1-7.3	---	---
		36-80	1.0-3.0	5.1-7.8	0-20	---
Malardi	10	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
L47A:						
Eden Prairie	85	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
Malardi	10	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Rasset	5	0-15	5.0-15	5.1-7.3	---	---
		15-28	7.0-13	5.1-7.3	---	---
		28-36	2.0-7.0	5.1-7.3	---	---
		36-80	1.0-3.0	5.1-7.8	0-20	---
L47B:						
Eden Prairie	80	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
Malardi	10	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Rasset	10	0-15	5.0-15	5.1-7.3	---	---
		15-28	7.0-13	5.1-7.3	---	---
		28-36	2.0-7.0	5.1-7.3	---	---
		36-80	1.0-3.0	5.1-7.8	0-20	---
L47C:						
Eden Prairie	70	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L47C:						
Malardi	10	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Rasset	10	0-15	5.0-15	5.1-7.3	---	---
		15-28	7.0-13	5.1-7.3	---	---
		28-36	2.0-7.0	5.1-7.3	---	---
		36-80	1.0-3.0	5.1-7.8	0-20	---
Hawick	10	0-7	1.0-10	6.1-7.8	0-10	---
		7-11	1.0-5.0	6.1-7.8	0-10	---
		11-80	1.0-5.0	7.4-8.4	5-15	---
L49A:						
Klossner, surface drained	65	0-26	50-150	5.6-7.4	0-5	---
		26-33	35-65	6.1-7.4	0-5	---
		33-40	20-40	6.1-7.4	0-5	---
		40-80	5.0-25	6.1-8.4	0-20	0-1
Klossner, drained	20	0-26	50-150	5.6-7.4	0-5	---
		26-36	35-65	6.1-7.4	0-5	---
		36-48	20-40	6.1-7.4	0-5	---
		48-80	5.0-25	6.1-8.4	0-20	0-1
Mineral soil, drained	15	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1
L50A:						
Houghton, surface drained	40	0-80	100-200	4.5-7.3	---	---
Muskego, surface drained	40	0-9	140-180	5.6-7.3	---	---
		9-36	150-190	5.6-7.3	---	---
		36-60	10-45	7.4-8.4	10-80	---
Klossner, drained	10	0-26	50-150	5.6-7.4	0-5	---
		26-36	35-65	6.1-7.4	0-5	---
		36-48	20-40	6.1-7.4	0-5	---
		48-80	5.0-25	6.1-8.4	0-20	0-1
Mineral soil, drained	10	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1
L52C:						
Urban land	75	---	---	---	---	---
Lester	20	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Kingsley	5	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L52E:						
Urban land	75	---	---	---	---	---
Lester	20	0-5	10-24	5.6-7.3	---	---
		5-34	10-23	5.1-7.3	---	---
		34-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Kingsley	5	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
L53B:						
Urban land	70	---	---	---	---	---
Moon	20	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-46	7.0-21	5.1-7.3	---	---
		46-60	7.0-21	7.4-8.4	10-20	0-1
Lester	10	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
L54A:						
Urban land	70	---	---	---	---	---
Dundas	20	0-9	9.0-22	5.6-7.3	---	---
		9-15	10-24	5.6-7.3	---	---
		15-40	11-26	5.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1
Nessel	10	0-6	10-24	5.6-7.3	---	---
		6-38	10-23	5.1-7.3	---	---
		38-80	10-20	7.4-8.4	10-20	0-1
L55B:						
Urban land	70	---	---	---	---	---
Malardi	20	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Rasset	5	0-15	5.0-15	5.1-7.3	---	---
		15-28	7.0-13	5.1-7.3	---	---
		28-36	2.0-7.0	5.1-7.3	---	---
		36-80	1.0-3.0	5.1-7.8	0-20	---
Eden Prairie	5	0-10	6.0-19	5.6-6.5	---	---
		10-16	4.0-13	5.6-6.5	---	---
		16-26	0.0-7.0	5.6-7.3	---	---
		26-80	0.0-4.0	5.6-7.8	0-30	---
L55C:						
Urban land	70	---	---	---	---	---
Malardi	20	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L55C:						
Hawick	5	0-7	1.0-10	6.1-7.8	0-10	---
		7-11	1.0-5.0	6.1-7.8	0-10	---
		11-80	1.0-5.0	7.4-8.4	5-15	---
Crowfork	5	0-11	3.0-10	5.6-7.3	---	---
		11-20	1.0-7.0	5.1-6.5	---	---
		20-76	1.0-7.0	5.6-7.3	---	---
		76-80	1.0-4.0	6.1-7.8	0-15	---
L56A:						
Muskego, frequently flooded	45	0-9	140-180	5.6-7.3	---	---
		9-36	150-190	5.6-7.3	---	---
		36-60	10-45	7.4-8.4	10-80	---
Klossner, frequently flooded	45	0-26	50-150	5.6-7.4	0-5	---
		26-33	35-65	6.1-7.4	0-5	---
		33-40	20-40	6.1-7.4	0-5	---
		40-80	5.0-25	6.1-8.4	0-20	0-1
Suckercreek, frequently flooded	10	0-22	10-20	7.4-8.4	5-20	---
		22-80	1.0-10	7.4-8.4	5-25	---
L58B:						
Koronis	60	0-10	5.0-20	5.6-7.3	---	---
		10-30	10-20	5.6-7.3	---	---
		30-60	5.0-15	7.4-8.4	5-20	---
Kingsley	25	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Forestcity	10	0-22	10-25	6.1-7.3	---	---
		22-36	15-25	6.1-7.3	---	---
		36-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1
Gotham	5	0-9	2.0-6.0	5.6-7.3	---	---
		9-18	2.0-4.0	5.1-7.3	---	---
		18-40	2.0-6.0	5.1-7.3	---	---
		40-80	1.0-3.0	5.1-7.3	---	---
L58C2:						
Koronis, eroded	55	0-10	5.0-20	5.6-7.3	---	---
		10-30	10-20	5.6-7.3	---	---
		30-60	5.0-15	7.4-8.4	5-20	---
Kingsley, eroded	25	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Forestcity	15	0-22	10-25	6.1-7.3	---	---
		22-36	15-25	6.1-7.3	---	---
		36-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L58C2:						
Gotham	5	0-9	2.0-6.0	5.6-7.3	---	---
		9-18	2.0-4.0	5.1-7.3	---	---
		18-40	2.0-6.0	5.1-7.3	---	---
		40-80	1.0-3.0	5.1-7.3	---	---
L58D2:						
Koronis, eroded	55	0-10	5.0-20	5.6-7.3	---	---
		10-30	10-20	5.6-7.3	---	---
		30-60	5.0-15	7.4-8.4	5-20	---
Kingsley, eroded	25	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Forestcity	15	0-22	10-25	6.1-7.3	---	---
		22-36	15-25	6.1-7.3	---	---
		36-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1
Gotham	5	0-9	2.0-6.0	5.6-7.3	---	---
		9-18	2.0-4.0	5.1-7.3	---	---
		18-40	2.0-6.0	5.1-7.3	---	---
		40-80	1.0-3.0	5.1-7.3	---	---
L58E:						
Koronis	55	0-10	5.0-20	5.6-7.3	---	---
		10-30	10-20	5.6-7.3	---	---
		30-60	5.0-15	7.4-8.4	5-20	---
Kingsley	25	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Forestcity	15	0-22	10-25	6.1-7.3	---	---
		22-36	15-25	6.1-7.3	---	---
		36-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1
Gotham	5	0-9	2.0-6.0	5.6-7.3	---	---
		9-18	2.0-4.0	5.1-7.3	---	---
		18-40	2.0-6.0	5.1-7.3	---	---
		40-80	1.0-3.0	5.1-7.3	---	---
L59A:						
Forestcity	70	0-22	10-25	6.1-7.3	---	---
		22-43	15-25	6.1-7.3	---	---
		43-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1
Lundlake, depressional	25	0-20	20-38	6.6-7.3	---	---
		20-46	14-25	6.6-7.3	---	---
		46-54	10-18	6.6-7.8	0-10	---
		54-60	5.0-10	7.4-7.8	10-20	0-1
Marcellon	5	0-13	8.0-30	5.6-7.3	---	---
		13-32	4.0-20	5.6-7.3	---	---
		32-60	2.0-15	7.4-7.8	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L60B:						
Angus	65	0-8	10-24	5.6-7.3	---	---
		8-35	10-23	5.1-7.3	---	---
		35-40	8.0-18	6.1-7.8	0-20	---
		40-80	10-20	7.4-8.4	10-20	0-1
Moon	30	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-46	7.0-21	5.1-7.3	---	---
		46-60	7.0-21	7.4-8.4	10-20	0-1
Hamel	5	0-24	15-30	5.6-7.3	---	---
		24-46	15-30	5.6-7.3	---	---
		46-80	10-20	7.4-8.4	10-20	0-1
L61C2:						
Lester, eroded	60	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Metea, eroded	25	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-46	7.0-21	5.1-7.3	---	---
		46-60	7.0-21	7.4-8.4	10-20	0-1
Terril	12	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
Hamel	3	0-24	15-30	5.6-7.3	---	---
		24-46	15-30	5.6-7.3	---	---
		46-80	10-20	7.4-8.4	10-20	0-1
L61D2:						
Lester, eroded	55	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Metea, eroded	25	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-46	7.0-21	5.1-7.3	---	---
		46-60	7.0-21	7.4-8.4	10-20	0-1
Terril	12	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
Ridgeton	5	0-23	20-25	6.1-7.3	---	---
		23-38	20-25	6.1-7.3	---	---
		38-50	15-25	6.1-7.3	---	---
		50-80	10-20	7.4-8.4	10-20	0-1
Hamel	3	0-24	15-30	5.6-7.3	---	---
		24-46	15-30	5.6-7.3	---	---
		46-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L61E:						
Lester	55	0-5	10-24	5.6-7.3	---	---
		5-34	10-23	5.1-7.3	---	---
		34-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Metea	25	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-46	7.0-21	5.1-7.3	---	---
		46-60	7.0-21	7.4-8.4	10-20	0-1
Terril	10	0-24	20-25	6.1-7.3	---	---
		24-37	20-25	6.1-7.3	---	---
		37-57	15-25	6.1-7.3	---	---
		57-80	10-20	7.4-8.4	10-20	0-1
Hamel	5	0-22	15-30	5.6-7.3	---	---
		22-41	15-30	5.6-7.3	---	---
		41-80	10-20	7.4-8.4	10-20	0-1
Ridgeton	5	0-32	20-25	6.1-7.3	---	---
		32-40	15-25	6.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1
L62B:						
Koronis	55	0-10	5.0-20	5.6-7.3	---	---
		10-30	10-20	5.6-7.3	---	---
		30-60	5.0-15	7.4-8.4	5-20	---
Kingsley	20	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Malardi	20	0-9	6.0-19	5.6-7.3	---	---
		9-14	1.0-12	5.6-7.3	---	---
		14-21	0.0-6.0	5.6-7.3	---	---
		21-80	0.0-3.0	7.0-8.4	0-30	---
Forestcity	5	0-22	10-25	6.1-7.3	---	---
		22-36	15-25	6.1-7.3	---	---
		36-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1
L62C2:						
Koronis, eroded	40	0-10	5.0-20	5.6-7.3	---	---
		10-30	10-20	5.6-7.3	---	---
		30-60	5.0-15	7.4-8.4	5-20	---
Kingsley, eroded	25	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Malardi, eroded	25	0-9	6.0-19	5.6-7.3	---	---
		9-14	1.0-12	5.6-7.3	---	---
		14-21	0.0-6.0	5.6-7.3	---	---
		21-80	0.0-3.0	7.0-8.4	0-30	---
Forestcity	10	0-22	10-25	6.1-7.3	---	---
		22-36	15-25	6.1-7.3	---	---
		36-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L62D2:						
Koronis, eroded------	40	0-10	5.0-20	5.6-7.3	---	---
		10-30	10-20	5.6-7.3	---	---
		30-60	5.0-15	7.4-8.4	5-20	---
Kingsley, eroded-----	25	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Malardi, eroded------	25	0-9	6.0-19	5.6-7.3	---	---
		9-14	1.0-12	5.6-7.3	---	---
		14-21	0.0-6.0	5.6-7.3	---	---
		21-80	0.0-3.0	7.0-8.4	0-30	---
Forestcity----------	10	0-22	10-25	6.1-7.3	---	---
		22-36	15-25	6.1-7.3	---	---
		36-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1
L62E:						
Koronis----------	40	0-10	5.0-20	5.6-7.3	---	---
		10-30	10-20	5.6-7.3	---	---
		30-60	5.0-15	7.4-8.4	5-20	---
Kingsley----------	25	0-7	5.0-14	5.6-6.5	---	---
		7-14	1.0-7.0	5.6-6.5	---	---
		14-34	2.0-12	5.1-7.3	---	---
		34-60	2.0-7.0	5.6-7.8	0-5	---
Malardi----------	25	0-9	6.0-19	5.6-7.3	---	---
		9-14	1.0-12	5.6-7.3	---	---
		14-21	0.0-6.0	5.6-7.3	---	---
		21-80	0.0-3.0	7.0-8.4	0-30	---
Forestcity----------	10	0-22	10-25	6.1-7.3	---	---
		22-36	15-25	6.1-7.3	---	---
		36-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1
L64A:						
Tadkee----------	50	0-6	5.0-20	6.1-7.8	---	---
		6-34	1.0-10	6.1-7.8	---	---
		34-80	10-20	7.4-8.4	10-20	0-1
Tadkee, depressional	36	0-6	30-70	6.1-7.8	---	---
		6-27	1.0-10	6.1-7.8	---	---
		27-80	10-20	7.4-8.4	10-20	0-1
Better drained soil--	8	0-6	3.0-8.0	6.1-7.3	---	---
		6-25	2.0-6.0	5.6-7.3	---	---
		25-80	10-20	7.4-8.4	10-20	0-1
Granby----------	4	0-12	5.0-20	5.6-7.3	---	---
		12-24	1.0-10	5.6-7.8	---	---
		24-60	1.0-3.0	6.6-8.4	0-20	---
Less sandy soil------	2	0-4	5.0-20	7.4-7.8	5-15	---
		4-20	10-20	7.4-8.4	10-20	0-1
		20-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L70C2:						
Lester, eroded-------	60	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Malardi, eroded------	25	0-10	6.0-19	5.6-7.3	---	---
		10-15	1.0-12	5.6-7.3	---	---
		15-29	0.0-6.0	5.6-7.3	---	---
		29-80	0.0-3.0	7.0-8.4	0-30	---
Terril----------	12	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
Hamel----------	3	0-24	15-30	5.6-7.3	---	---
		24-46	15-30	5.6-7.3	---	---
		46-80	10-20	7.4-8.4	10-20	0-1
L70D2:						
Lester, eroded-------	55	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Malardi, eroded------	25	0-9	6.0-19	5.6-7.3	---	---
		9-14	1.0-12	5.6-7.3	---	---
		14-21	0.0-6.0	5.6-7.3	---	---
		21-80	0.0-3.0	7.0-8.4	0-30	---
Terril----------	12	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
Ridgeton----------	5	0-23	20-25	6.1-7.3	---	---
		23-38	20-25	6.1-7.3	---	---
		38-50	15-25	6.1-7.3	---	---
		50-80	10-20	7.4-8.4	10-20	0-1
Hamel----------	3	0-24	15-30	5.6-7.3	---	---
		24-46	15-30	5.6-7.3	---	---
		46-80	10-20	7.4-8.4	10-20	0-1
L70E:						
Lester----------	55	0-5	10-24	5.6-7.3	---	---
		5-34	10-23	5.1-7.3	---	---
		34-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Malardi----------	25	0-9	6.0-19	5.6-7.3	---	---
		9-14	1.0-12	5.6-7.3	---	---
		14-21	0.0-6.0	5.6-7.3	---	---
		21-80	0.0-3.0	7.0-8.4	0-30	---
Terril----------	10	0-24	20-25	6.1-7.3	---	---
		24-37	20-25	6.1-7.3	---	---
		37-57	15-25	6.1-7.3	---	---
		57-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L70E:						
Hamel	5	0-22	15-30	5.6-7.3	---	---
		22-41	15-30	5.6-7.3	---	---
		41-80	10-20	7.4-8.4	10-20	0-1
Ridgeton	5	0-32	20-25	6.1-7.3	---	---
		32-40	15-25	6.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1
L71C:						
Metea	80	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-46	7.0-21	5.1-7.3	---	---
		46-60	7.0-21	7.4-8.4	10-20	0-1
Lester	15	0-7	10-24	5.6-7.3	---	---
		7-38	10-23	5.1-7.3	---	---
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Moon	5	0-8	2.0-9.0	5.6-7.3	---	---
		8-24	1.0-5.0	5.6-7.3	---	---
		24-46	7.0-21	5.1-7.3	---	---
		46-60	7.0-21	7.4-8.4	10-20	0-1
L72A:						
Lundlake, depressional	90	0-20	20-38	6.6-7.3	---	---
		20-46	14-25	6.6-7.3	---	---
		46-54	10-18	6.6-7.8	0-10	---
		54-60	5.0-10	7.4-7.8	10-20	0-1
Forestcity	10	0-22	10-25	6.1-7.3	---	---
		22-43	15-25	6.1-7.3	---	---
		43-60	8.0-20	5.6-7.3	---	---
		60-80	5.0-12	7.4-7.8	10-20	0-1
L110E:						
Lester	50	0-5	10-24	5.6-7.3	---	---
		5-34	10-23	5.1-7.3	---	---
		34-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Ridgeton	30	0-32	20-25	6.1-7.3	---	---
		32-40	15-25	6.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1
Cokato	10	0-16	15-25	5.6-7.3	---	---
		16-30	15-20	5.6-7.3	---	---
		30-60	10-20	7.4-8.4	15-25	0-1
Belview	6	0-9	11-18	7.4-8.4	5-30	---
		9-50	10-20	7.4-8.4	15-25	0-1
		50-60	10-20	7.4-8.4	10-20	0-1
Hamel	2	0-22	15-30	5.6-7.3	---	---
		22-41	15-30	5.6-7.3	---	---
		41-80	10-20	7.4-8.4	10-20	0-1
Terril	2	0-24	20-25	6.1-7.3	---	---
		24-37	20-25	6.1-7.3	---	---
		37-57	15-25	6.1-7.3	---	---
		57-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
L110F:						
Lester	55	0-6	10-24	5.6-7.3	---	---
		6-25	10-23	5.1-7.3	---	---
		25-60	10-20	7.4-8.4	10-20	0-1
Ridgeton	30	0-32	20-25	6.1-7.3	---	---
		32-40	15-25	6.1-7.3	---	---
		40-80	10-20	7.4-8.4	10-20	0-1
Cokato	8	0-16	15-25	5.6-7.3	---	---
		16-30	15-20	5.6-7.3	---	---
		30-60	10-20	7.4-8.4	15-25	0-1
Belview	4	0-9	11-18	7.4-8.4	5-30	---
		9-50	10-20	7.4-8.4	15-25	0-1
		50-60	10-20	7.4-8.4	10-20	0-1
Terril	2	0-24	20-25	6.1-7.3	---	---
		24-37	20-25	6.1-7.3	---	---
		37-57	15-25	6.1-7.3	---	---
		57-80	10-20	7.4-8.4	10-20	0-1
Hamel	1	0-22	15-30	5.6-7.3	---	---
		22-41	15-30	5.6-7.3	---	---
		41-80	10-20	7.4-8.4	10-20	0-1
L131A:						
Litchfield	85	0-20	6.0-14	5.1-7.3	---	---
		20-33	3.0-8.0	5.1-7.3	---	---
		33-40	5.0-12	5.1-7.3	---	---
		40-80	1.0-6.0	6.1-7.8	0-5	---
Darfur	10	0-16	10-20	6.1-7.3	---	---
		16-32	5.0-15	6.6-7.3	---	---
		32-80	1.0-10	6.6-7.4	0-15	---
Crowfork	5	0-11	3.0-10	5.6-7.3	---	---
		11-20	1.0-7.0	5.1-6.5	---	---
		20-76	1.0-7.0	5.6-7.3	---	---
		76-80	1.0-4.0	6.1-7.8	0-15	---
L132A:						
Hamel	50	0-24	15-30	5.6-7.3	---	---
		24-46	15-30	5.6-7.3	---	---
		46-80	10-20	7.4-8.4	10-20	0-1
Glencoe, depressional	30	0-13	22-33	6.1-7.8	0-5	---
		13-31	16-27	6.1-7.8	0-5	---
		31-45	14-25	6.6-7.8	0-5	---
		45-80	10-20	7.4-8.4	10-20	0-1
Hamel, overwash	15	0-13	15-30	5.6-7.3	---	---
		13-29	15-30	5.6-7.3	---	---
		29-50	15-30	5.6-7.3	---	---
		50-80	10-20	7.4-8.4	10-20	0-1
Terril	5	0-27	20-25	6.1-7.3	---	---
		27-40	20-25	6.1-7.3	---	---
		40-63	15-25	6.1-7.3	---	---
		63-80	10-20	7.4-8.4	10-20	0-1
M-W.						
Water, miscellaneous						

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-exchange capacity	Soil reaction	Calcium carbon-ate	Gypsum
		In	meq/100 g	pH	Pct	Pct
U1A. Urban land-Udorthents, wet substratum						
U2A. Udorthents, wet substratum						
U3B. Udorthents (cut and fill land)						
U4A. Urban land-Udipsamments (cut and fill land)						
U5A. Urban land-Udorthents, wet substratum						
U6B. Urban land-Udorthents (cut and fill land)						
W. Water						

Table 20.--Soil Moisture Status by Depth

(See text for definitions of terms used in this table. Depths of layers are in feet)

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D1B:													
Anoka, terrace--	A	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
Zimmerman, terrace--------	A	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
Kost----------	A	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
D1C:													
Anoka, terrace--	A	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
Zimmerman, terrace--------	A	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
Kost----------	A	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
D2A:													
Elkriver, rarely flooded--------	B	0.0-5.0: Moist 5.0-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-6.0: Moist 6.0-6.7: Wet	0.0-6.7: Moist ---	0.0-5.0: Moist 5.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D2A:													
Mosford, rarely flooded--------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.0: Moist 5.0-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Elkriver, occasionally flooded--------	B	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet
D3A:													
Elkriver, occasionally flooded--------	B	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet
Fordum, frequently flooded--------	D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.8: Moist 0.8-6.7: Wet	0.0-1.2: Moist 1.2-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Winterfield, occasionally flooded--------	A	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet
D4A:													
Dorset----------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Almora----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D4B:													
Dorset----------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Almora----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
D4C:													
Dorset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Almora----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
D5B:													
Dorset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Two Inlets------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Southhaven------	B	0.0-5.2: Moist 5.2-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.8: Moist 4.8-6.7: Wet
D5C:													
Dorset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D5C:													
Two Inlets------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Southhaven------	B	0.0-5.2: Moist 5.2-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.8: Moist 4.8-6.7: Wet
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
D5D:													
Dorset----------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Two Inlets------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Southhaven------	B	0.0-5.2: Moist 5.2-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.8: Moist 4.8-6.7: Wet
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
D6A:													
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Dorset----------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D6B:													
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Dorset----------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
D6C:													
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Dorset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
D7A:													
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Mosford---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
D7B:													
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Mosford---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D7C:													
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Sandberg--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Mosford---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
D8B:													
Sandberg--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Arvilla, MAP >25	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
D8C:													
Sandberg--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Corliss---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Southhaven------	B	0.0-5.2: Moist 5.2-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.8: Moist 4.8-6.7: Wet
D8D:													
Sandberg--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D8D:													
Corliss---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Southhaven------	B	0.0-5.2: Moist 5.2-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.8: Moist 4.8-6.7: Wet
D8E:													
Sandberg--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Corliss---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Southhaven------	B	0.0-5.2: Moist 5.2-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.8: Moist 4.8-6.7: Wet
D10A:													
Forada----------	B/D	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet
Depressional soil-----------	B/D	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet
D11A:													
Lindaas---------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D11A:													
Lindaas, sandy substratum-----	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Depressional soil----------	C/D	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet
D12B:													
Bygland, MAP >25	C	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist	0.0-5.0: Moist 5.0-6.0: Wet 6.0-6.7: Moist	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist
Bygland, sandy substratum-----	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.8: Moist 2.8-3.2: Wet 3.2-6.7: Moist	0.0-2.3: Moist 2.3-3.2: Wet 3.2-6.7: Moist	0.0-2.5: Moist 2.5-3.2: Wet 3.2-6.7: Moist	0.0-2.8: Moist 2.8-3.2: Wet 3.2-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-3.2: Wet 3.2-6.7: Moist	0.0-2.6: Moist 2.6-3.2: Wet 3.2-6.7: Moist	0.0-6.7: Moist --- ---
Lindaas---------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Depressional soil----------	C/D	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D12C2:													
Bygland, MAP >25	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Bygland, sandy substratum	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.8: Moist 2.8-3.2: Wet 3.2-6.7: Moist	0.0-2.3: Moist 2.3-3.2: Wet 3.2-6.7: Moist	0.0-2.5: Moist 2.5-3.2: Wet 3.2-6.7: Moist	0.0-2.8: Moist 2.8-3.2: Wet 3.2-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-3.2: Wet 3.2-6.7: Moist	0.0-2.6: Moist 2.6-3.2: Wet 3.2-6.7: Moist	0.0-6.7: Moist --- ---
Lindaas	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Depressional soil	C/D	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet
D13A:													
Langola, terrace	C	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-3.0: Moist 3.0-4.5: Wet 4.5-5.0: Moist	0.0-2.0: Moist 2.0-4.5: Wet 4.5-5.0: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-5.0: Moist	0.0-3.5: Moist 3.5-4.5: Wet 4.5-5.0: Moist	0.0-5.0: Moist --- ---	0.0-0.7: Dry 0.7-5.0: Moist ---	0.0-5.0: Moist --- ---	0.0-4.0: Moist 4.0-4.5: Wet 4.5-5.0: Moist	0.0-3.3: Moist 3.3-4.5: Wet 4.5-5.0: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-5.0: Moist
Duelm	A	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
Hubbard	A	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D13B:													
Langola, terrace	C	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-3.5: Moist 3.5-4.5: Wet 4.5-5.0: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-5.0: Moist	0.0-3.0: Moist 3.0-4.5: Wet 4.5-5.0: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-5.0: Moist	0.0-5.0: Moist --- ---	0.0-0.7: Dry 0.7-5.0: Moist ---	0.0-5.0: Moist --- ---	0.0-4.0: Moist 4.0-4.5: Wet 4.5-5.0: Moist	0.0-3.3: Moist 3.3-4.5: Wet 4.5-5.0: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-5.0: Moist
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Duelm----------	A	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
D15A:													
Seelyeville, drained--------	A/D	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet
Markey, drained	A/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Mineral soil, drained--------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
D16A:													
Seelyeville, ponded---------	A/D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet
Markey, ponded--	A/D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet
Mineral soil, ponded---------	B/D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D17A:													
Duelm----------	A	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
Isan----------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.7: Moist 1.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
D18B:													
Braham, terrace	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-3.5: Moist 3.5-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet
Duelm----------	A	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
D19A:													
Fordum, frequently flooded--------	D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.8: Moist 0.8-6.7: Wet	0.0-1.2: Moist 1.2-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Winterfield, frequently flooded--------	A	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D19A:													
Fordum, occasionally flooded--------	D	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
D20A:													
Isan----------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.7: Moist 1.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Isan, depressional---	B/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
Duelm----------	A	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
D21A:													
Isan, depressional---	B/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
Isan----------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.7: Moist 1.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
D23A:													
Southhaven------	B	0.0-5.2: Moist 5.2-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.8: Moist 4.8-6.7: Wet
Dorset----------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D23A:													
Mosford---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
D24A:													
Sedgeville, occasionally flooded--------	D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Elkriver, occasionally flooded--------	B	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet
D25A:													
Soderville, terrace--------	A	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-2.0: Moist 2.0-3.7: Wet 3.7-5.0: Moist	0.0-3.0: Moist 3.0-3.7: Wet 3.7-5.0: Moist	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---
Forada----------	B/D	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet
D26A:													
Foldahl, MAP >25	B	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-3.0: Moist 3.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.8: Moist 2.8-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet
Hubbard---------	A	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D26A:													
Isan----------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.7: Moist 1.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
D27A:													
Dorset, loamy substratum-----	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Dorset----------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Southhaven------	B	0.0-5.2: Moist 5.2-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.8: Moist 4.8-6.7: Wet
D28B:													
Urban land.													
Bygland, MAP >25	C	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist	0.0-5.0: Moist 5.0-6.0: Wet 6.0-6.7: Moist	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist
Bygland, sandy substratum-----	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.8: Moist 2.8-3.2: Wet 3.2-6.7: Moist	0.0-2.3: Moist 2.3-3.2: Wet 3.2-6.7: Moist	0.0-2.5: Moist 2.5-3.2: Wet 3.2-6.7: Moist	0.0-2.8: Moist 2.8-3.2: Wet 3.2-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-3.2: Wet 3.2-6.7: Moist	0.0-2.6: Moist 2.6-3.2: Wet 3.2-6.7: Moist	0.0-6.7: Moist --- ---
D29B:													
Urban land.													
Hubbard, bedrock substratum-----	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D29B:													
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Mosford---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
D30A:													
Seelyeville, surface drained	A/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
Markey, surface drained--------	A/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
Mineral soil, surface drained	B/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
D31A:													
Urban land.													
Duelm----------	A	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Isan----------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.7: Moist 1.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D33B:													
Urban land.													
Dorset----------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
D33C:													
Urban land.													
Dorset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Verndale, acid substratum-----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
D34B:													
Urban land.													
Hubbard---------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Mosford---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydrologic group	January	February	March	April	May	June	July	August	September	October	November	December
D35A:													
Elkriver, occasionally flooded--------	B	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet
Fordum, occasionally flooded--------	D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.8: Moist 0.8-6.7: Wet	0.0-1.2: Moist 1.2-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Udipsamments.													
Winterfield, occasionally flooded--------	A	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet
D37F:													
Dorset, bedrock substratum-----	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Rock outcrop.													
Hubbard, bedrock substratum-----	A	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
D40A:													
Kratka, thick solum----------	B/D	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.7: Moist 1.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
D40A:													
Duelm----------	A	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
Foldahl, MAP >25	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-3.0: Moist 3.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.8: Moist 2.8-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet
D41C:													
Urban land.													
Waukon----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Braham----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-3.5: Moist 3.5-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet
D43A:													
Gonvick, terrace	B	0.0-4.9: Moist 4.9-5.0: Wet	0.0-5.0: Moist ---	0.0-3.0: Moist 3.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-3.9: Moist 3.9-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet
Braham----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-3.5: Moist 3.5-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet
GP.													
Pits, gravel-Udipsamments													
L2B:													
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hawick----------	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Rasset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L2B:													
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L2C:													
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hawick----------	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Tomall----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Crowfork--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L2D:													
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hawick----------	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Tomall----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Crowfork--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L2E:													
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hawick----------	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L2E:													
Tomall----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L3A:													
Rasset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L3B:													
Rasset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L3C:													
Rasset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Tomall----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L4B:													
Crowfork--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L4B:													
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L4C:													
Crowfork--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L4D:													
Crowfork--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L6A:													
Biscay----------	B/D	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet
Biscay, depressional---	B/D	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet
Mayer----------	B/D	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet
L7A:													
Biscay, depressional---	B/D	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L7A:													
Biscay----------	B/D	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet
Mayer----------	B/D	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet
L8A:													
Darfur----------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Dassel----------	B/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
L9A:													
Minnetonka------	C/D	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-0.8: Moist 0.8-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.8: Moist 0.8-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet
Depressional soil----------	C/D	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet
L10B:													
Kasota----------	C	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Wet soil in swales---------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L11B:													
Grays----------	B	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-2.5: Moist 2.5-3.4: Wet 3.4-5.0: Moist	0.0-2.8: Moist 2.8-4.0: Wet 4.0-5.0: Moist	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---
Kasota----------	C	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Crowfork--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L12A:													
Muskego, frequently flooded--------	D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Blue Earth, frequently flooded--------	D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Houghton, frequently flooded--------	D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet
Oshawa, frequently flooded--------	D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
L13A:													
Klossner, drained--------	A/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L13A:													
Mineral soil, drained--------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Houghton, drained--------	A/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L14A:													
Houghton, drained--------	A/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Klossner, drained--------	A/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Mineral soil, drained--------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L15A:													
Klossner, ponded	A/D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet
Okoboji, ponded	C/D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Glencoe, ponded	B/D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Houghton, ponded	A/D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L16A:													
Muskego, ponded	A/D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Blue Earth, ponded---------	B/D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Houghton, ponded	A/D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet
Klossner, ponded	A/D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet
L17B:													
Angus----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-4.6: Moist 4.6-6.7: Wet ---	0.0-3.6: Moist 3.6-6.7: Wet ---	0.0-3.9: Moist 3.9-6.7: Wet ---	0.0-4.6: Moist 4.6-6.7: Wet ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-5.9: Moist 5.9-6.7: Wet ---	0.0-4.6: Moist 4.6-6.7: Wet ---	0.0-5.2: Moist 5.2-6.7: Wet ---
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Moon----------	B	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-4.6: Moist 4.6-5.0: Wet ---	0.0-2.5: Moist 2.5-5.0: Wet ---	0.0-3.0: Moist 3.0-5.0: Wet ---	0.0-5.0: Moist --- ---	0.0-5.0: Moist --- ---	0.0-0.7: Dry 0.7-5.0: Moist ---	0.0-5.0: Moist --- ---	0.0-4.6: Moist 4.6-5.0: Wet ---	0.0-3.5: Moist 3.5-5.0: Wet ---	0.0-4.5: Moist 4.5-5.0: Wet ---
Cordova---------	B/D	0.0-2.0: Moist 2.0-6.7: Wet ---	0.0-2.5: Moist 2.5-6.7: Wet ---	0.0-0.8: Moist 0.8-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet ---	0.0-0.8: Moist 0.8-6.7: Wet ---	0.0-2.0: Moist 2.0-6.7: Wet ---	0.0-2.5: Moist 2.5-6.7: Wet ---	0.0-2.0: Moist 2.0-6.7: Wet ---	0.0-1.5: Moist 1.5-6.7: Wet ---	0.0-0.7: Moist 0.7-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet ---
L18A:													
Shields---------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-3.4: Wet 3.4-6.7: Moist	0.0-1.0: Moist 1.0-3.4: Wet 3.4-6.7: Moist	0.0-1.5: Moist 1.5-3.4: Wet 3.4-6.7: Moist	0.0-2.5: Moist 2.5-3.4: Wet 3.4-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-3.4: Wet 3.4-6.7: Moist	0.0-2.7: Moist 2.7-3.4: Wet 3.4-6.7: Moist	0.0-3.0: Moist 3.0-3.4: Wet 3.4-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L18A:													
Lerdal----------	C	0.0-3.0: Moist 3.0-5.0: Wet ---	0.0-4.9: Moist 4.9-5.0: Wet ---	0.0-3.0: Moist 3.0-4.0: Wet 4.0-4.4: Moist 4.4-5.0: Wet ---	0.0-1.7: Moist 1.7-5.0: Wet ---	0.0-1.7: Moist 1.7-5.0: Wet ---	0.0-1.8: Moist 1.8-5.0: Wet ---	0.0-3.0: Moist 3.0-5.0: Wet ---	0.0-4.9: Moist 4.9-5.0: Wet ---	0.0-3.9: Moist 3.9-5.0: Wet ---	0.0-2.3: Moist 2.3-5.0: Wet ---	0.0-1.6: Moist 1.6-5.0: Wet ---	0.0-2.0: Moist 2.0-5.0: Wet ---
Mazaska---------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L19B:													
Moon----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet
Finchford-------	A	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
L20B:													
Fedji, silty substratum-----	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
Finchford-------	A	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
L21A:													
Canisteo--------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L21A:													
Cordova---------	B/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Glencoe---------	B/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
L22C2:													
Lester, eroded--	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Angus----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
L22D2:													
Lester, eroded--	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L22E:													
Lester, morainic	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Terril	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Hamel	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
Ridgeton	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L22F:													
Lester, morainic	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Terril	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Ridgeton	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hamel	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
L23A:													
Cordova	B/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Glencoe	B/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L23A:													
Nessel----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.0: Moist 5.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet
L24A:													
Glencoe, depressional---	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Cordova---------	B/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L25A:													
Le Sueur--------	B	0.0-3.9: Moist 3.9-6.7: Wet	0.0-6.7: Moist ---	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-6.7: Moist ---	0.0-3.9: Moist 3.9-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet
Cordova---------	B/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Angus----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
L26A:													
Shorewood-------	C	0.0-3.9: Moist 3.9-5.0: Wet	0.0-5.0: Moist ---	0.0-2.8: Moist 2.8-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.9: Moist 3.9-5.0: Wet	0.0-5.0: Moist ---	0.0-3.9: Moist 3.9-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-2.6: Moist 2.6-5.0: Wet	0.0-2.8: Moist 2.8-5.0: Wet
Minnetonka------	C/D	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-0.8: Moist 0.8-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.8: Moist 0.8-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L26A:													
Good Thunder----	C	0.0-3.9: Moist 3.9-6.7: Wet	0.0-5.6: Moist 5.6-6.7: Wet	0.0-2.8: Moist 2.8-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.8: Moist 2.8-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-5.6: Moist 5.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.8: Moist 2.8-6.7: Wet
L26B:													
Shorewood-------	C	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-3.0: Moist 3.0-4.0: Wet 4.0-4.4: Moist 4.4-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet --- ---	0.0-2.5: Moist 2.5-5.0: Wet --- ---	0.0-3.5: Moist 3.5-5.0: Wet --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-4.6: Moist 4.6-5.0: Wet --- ---	0.0-4.6: Moist 4.6-5.0: Wet --- ---
Good Thunder----	C	0.0-3.9: Moist 3.9-6.7: Wet	0.0-5.6: Moist 5.6-6.7: Wet	0.0-2.8: Moist 2.8-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.8: Moist 2.8-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-5.6: Moist 5.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.8: Moist 2.8-6.7: Wet
Minnetonka------	C/D	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-0.8: Moist 0.8-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.8: Moist 0.8-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet
L26C2:													
Shorewood, eroded---------	C	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-1.5: Moist 1.5-3.5: Wet 3.5-5.0: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-5.0: Moist	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---	0.0-5.0: Moist --- --- ---
Minnetonka------	C/D	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-0.8: Moist 0.8-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.8: Moist 0.8-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-0.7: Moist 0.7-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet
L27A:													
Suckercreek, frequently flooded--------	D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.8: Moist 0.8-6.7: Wet	0.0-1.2: Moist 1.2-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L27A:													
Suckercreek, occasionally flooded--------	D	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Hanlon, occasionally flooded--------	B	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-2.8: Moist 2.8-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
L28A:													
Suckercreek, occasionally flooded--------	D	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Suckercreek, frequently flooded--------	D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.8: Moist 0.8-6.7: Wet	0.0-1.2: Moist 1.2-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Hanlon, occasionally flooded--------	B	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-2.8: Moist 2.8-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
L29A:													
Hanlon, occasionally flooded--------	B	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-2.8: Moist 2.8-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L29A:													
Suckercreek, occasionally flooded--------	D	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Suckercreek, frequently flooded--------	D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.8: Moist 0.8-6.7: Wet	0.0-1.2: Moist 1.2-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L30A:													
Medo, surface drained--------	A/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
Medo, drained---	A/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Mineral soil, drained--------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L31A:													
Medo, ponded----	A/D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Dassel, ponded--	B/D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Biscay, ponded--	B/D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Houghton, ponded	A/D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L31A:													
Muskego, ponded	A/D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
L32D:													
Hawick----------	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Crowfork--------	A	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---
Tomall----------	B	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---
L32F:													
Hawick----------	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Crowfork--------	A	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---	0.0-5.0: Moist --- --- --- ---
Tomall----------	B	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---
L35A:													
Lerdal----------	C	0.0-3.0: Moist 3.0-5.0: Wet --- --- --- ---	0.0-4.9: Moist 4.9-5.0: Wet --- --- --- ---	0.0-3.0: Moist 3.0-4.0: Wet 4.0-4.4: Moist 4.4-5.0: Wet	0.0-1.7: Moist 1.7-5.0: Wet --- --- --- ---	0.0-1.7: Moist 1.7-5.0: Wet --- --- --- ---	0.0-1.8: Moist 1.8-5.0: Wet --- --- --- ---	0.0-3.0: Moist 3.0-5.0: Wet --- --- --- ---	0.0-4.9: Moist 4.9-5.0: Wet --- --- --- ---	0.0-3.9: Moist 3.9-5.0: Wet --- --- --- ---	0.0-2.3: Moist 2.3-5.0: Wet --- --- --- ---	0.0-1.6: Moist 1.6-5.0: Wet --- --- --- ---	0.0-2.0: Moist 2.0-5.0: Wet --- --- --- ---
Mazaska---------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L35A:													
Cordova---------	B/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Le Sueur--------	B	0.0-3.9: Moist 3.9-6.7: Wet	0.0-6.7: Moist ---	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-6.7: Moist ---	0.0-3.9: Moist 3.9-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet
L36A:													
Hamel, overwash	B	0.0-3.6: Moist 3.6-6.7: Wet	0.0-4.3: Moist 4.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Glencoe---------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L37B:													
Angus, morainic	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Angus, eroded---	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Le Sueur--------	B	0.0-3.9: Moist 3.9-6.7: Wet	0.0-6.7: Moist ---	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-6.7: Moist ---	0.0-3.9: Moist 3.9-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L37B:													
Cordova---------	B/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L38A:													
Rushriver, occasionally flooded--------	B/D	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Oshawa, frequently flooded--------	D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Minneiska, occasionally flooded--------	B	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.7: Moist 2.7-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet
Algansee, occasionally flooded--------	A	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.8: Moist 1.8-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet
L39A:													
Minneiska, occasionally flooded--------	B	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.7: Moist 2.7-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L39A:													
Rushriver, occasionally flooded--------	B/D	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Oshawa, frequently flooded--------	D	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet	0.0-5.0: Wet
Algansee, occasionally flooded--------	A	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.8: Moist 1.8-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet
L40B:													
Angus----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Kilkenny--------	C	0.0-4.9: Moist 4.9-6.7: Wet --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-3.0: Moist 3.0-4.0: Wet 4.0-4.4: Moist 4.4-6.7: Wet	0.0-1.7: Moist 1.7-6.7: Wet --- --- ---	0.0-3.0: Moist 3.0-6.7: Wet --- --- ---	0.0-4.4: Moist 4.4-6.7: Wet --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- --- ---	0.0-5.2: Moist 5.2-6.7: Wet --- --- ---	0.0-4.6: Moist 4.6-6.7: Wet --- --- ---	0.0-4.6: Moist 4.6-6.7: Wet --- --- ---
Lerdal----------	C	0.0-3.0: Moist 3.0-6.7: Wet --- --- ---	0.0-4.9: Moist 4.9-6.7: Wet --- --- ---	0.0-3.0: Moist 3.0-4.0: Wet 4.0-4.4: Moist 4.4-6.7: Wet	0.0-1.7: Moist 1.7-6.7: Wet --- --- ---	0.0-1.7: Moist 1.7-6.7: Wet --- --- ---	0.0-1.8: Moist 1.8-6.7: Wet --- --- ---	0.0-3.0: Moist 3.0-6.7: Wet --- --- ---	0.0-4.9: Moist 4.9-6.7: Wet --- --- ---	0.0-3.9: Moist 3.9-6.7: Wet --- --- ---	0.0-2.3: Moist 2.3-6.7: Wet --- --- ---	0.0-1.6: Moist 1.6-6.7: Wet --- --- ---	0.0-2.0: Moist 2.0-6.7: Wet --- --- ---

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L40B:													
Mazaska---------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L41C2:													
Lester, eroded--	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Kilkenny, eroded	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-2.8: Moist 2.8-4.0: Wet 4.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Derrynane-------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L41D2:													
Lester, eroded--	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Kilkenny, eroded	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-2.8: Moist 2.8-4.0: Wet 4.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Derrynane-------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L41D2:													
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L41E:													
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Kilkenny--------	C	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.5: Moist	0.0-2.8: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
		---	---	---	2.5-3.5: Wet	2.8-4.0: Wet	---	---	---	---	---	---	---
		---	---	---	3.5-6.7: Moist	4.0-6.7: Moist	---	---	---	---	---	---	---
Terril----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-4.6: Moist	0.0-3.6: Moist	0.0-3.9: Moist	0.0-4.6: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-5.9: Moist	0.0-4.6: Moist	0.0-5.2: Moist
		---	---	4.6-6.7: Wet	3.6-6.7: Wet	3.9-6.7: Wet	4.6-6.7: Wet	---	---	---	5.9-6.7: Wet	4.6-6.7: Wet	5.2-6.7: Wet
Derrynane-------	C/D	0.0-2.0: Moist	0.0-2.6: Moist	0.0-0.8: Moist	0.0-0.5: Moist	0.0-0.5: Moist	0.0-0.8: Moist	0.0-2.0: Moist	0.0-2.6: Moist	0.0-2.0: Moist	0.0-1.3: Moist	0.0-0.7: Moist	0.0-1.0: Moist
		2.0-6.7: Wet	2.6-6.7: Wet	0.8-6.7: Wet	0.5-6.7: Wet	0.5-6.7: Wet	0.8-6.7: Wet	2.0-6.7: Wet	2.6-6.7: Wet	2.0-6.7: Wet	1.3-6.7: Wet	0.7-6.7: Wet	1.0-6.7: Wet
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L41F:													
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Kilkenny--------	C	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.5: Moist	0.0-2.8: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
		---	---	---	2.5-3.5: Wet	2.8-4.0: Wet	---	---	---	---	---	---	---
		---	---	---	3.5-6.7: Moist	4.0-6.7: Moist	---	---	---	---	---	---	---
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Terril----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-4.6: Moist	0.0-3.6: Moist	0.0-3.9: Moist	0.0-4.6: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-5.9: Moist	0.0-4.6: Moist	0.0-5.2: Moist
		---	---	4.6-6.7: Wet	3.6-6.7: Wet	3.9-6.7: Wet	4.6-6.7: Wet	---	---	---	5.9-6.7: Wet	4.6-6.7: Wet	5.2-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L41F:													
Derrynane-------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L42B:													
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Gotham----------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Grays----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet
L42C:													
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Gotham----------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Grays----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet
L42D:													
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Gotham----------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Grays----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L42E:													
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Gotham----------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Grays----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet
L42F:													
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Gotham----------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Grays----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet
L43A:													
Brouillett, occasionally flooded--------	B	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet
Minneiska, occasionally flooded--------	B	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-2.7: Moist 2.7-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L43A:													
Rushriver, occasionally flooded--------	B/D	0.0-1.8: Moist 1.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.3: Moist 2.3-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
L44A:													
Nessel----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.0: Moist 5.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet
Cordova---------	B/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Angus----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
L45A:													
Dundas----------	B	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.9: Moist 4.9-6.7: Wet	0.0-6.7: Moist ---	0.0-4.9: Moist 4.9-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
Cordova---------	B/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.8: Moist 0.8-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Nessel----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.0: Moist 5.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet
Glencoe---------	B/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L46A:													
Tomall----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Rasset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L47A:													
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Rasset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L47B:													
Eden Prairie----	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Rasset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L47C:													
Eden Prairie----	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Rasset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hawick----------	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L49A:													
Klossner, surface drained	A/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
Klossner, drained--------	A/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Mineral soil, drained--------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
L50A:													
Houghton, surface drained	A/D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
Muskego, surface drained--------	A/D	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet
Klossner, drained--------	A/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Mineral soil, drained--------	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L52C:													
Urban land.													
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
L52E:													
Urban land.													
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
L53B:													
Urban land.													
Moon----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L54A:													
Urban land.													
Dundas----------	B	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.9: Moist 4.9-6.7: Wet	0.0-6.7: Moist ---	0.0-4.9: Moist 4.9-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
Nessel----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.0: Moist 5.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet
L55B:													
Urban land.													

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L55B:													
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Rasset----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Eden Prairie----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L55C:													
Urban land.													
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hawick----------	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Crowfork--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L56A:													
Muskego, frequently flooded--------	D	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet
Klossner, frequently flooded--------	D	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet
Suckercreek, frequently flooded--------	D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.8: Moist 1.8-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.8: Moist 0.8-6.7: Wet	0.0-1.2: Moist 1.2-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L58B:													
Koronis---------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Gotham----------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L58C2:													
Koronis, eroded	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Kingsley, eroded	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Gotham----------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L58D2:													
Koronis, eroded	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Kingsley, eroded	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L58D2:													
Gotham----------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L58E:													
Koronis---------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Gotham----------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L59A:													
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Lundlake, depressional---	B/D	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet
Marcellon-------	B	0.0-4.0: Moist 4.0-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-4.9: Moist 4.9-5.0: Wet	0.0-5.0: Moist ---	0.0-4.9: Moist 4.9-5.0: Wet	0.0-4.0: Moist 4.0-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-3.3: Moist 3.3-5.0: Wet
L60B:													
Angus----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L60B:													
Moon----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
L61C2:													
Lester, eroded--	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Metea, eroded---	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
L61D2:													
Lester, eroded--	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Metea, eroded---	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L61D2:													
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
L61E:													
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Metea----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L62B:													
Koronis---------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
L62C2:													
Koronis, eroded	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L62C2:													
Kingsley, eroded	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Malardi, eroded	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
L62D2:													
Koronis, eroded	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Kingsley, eroded	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Malardi, eroded	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
L62E:													
Koronis---------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Kingsley--------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
L64A:													
Tadkee----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L64A:													
Tadkee, depressional---	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Better drained soil----------	B	0.0-4.9: Moist 4.9-6.7: Wet	0.0-6.7: Moist ---	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.0: Moist 4.6-6.7: Wet	0.0-4.9: Moist 4.9-6.7: Wet	0.0-6.7: Moist ---	0.0-4.9: Moist 4.9-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet
Granby----------	A/D	0.0-1.1: Moist 1.1-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.8: Moist 1.8-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-0.8: Moist 0.8-5.0: Wet
Less sandy soil	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
L70C2:													
Lester, eroded--	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Malardi, eroded	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
L70D2:													
Lester, eroded--	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Malardi, eroded	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L70D2:													
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
L70E:													
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Malardi---------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
L71C:													
Metea----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-5.0: Moist ---
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Moon----------	B	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-2.5: Moist 2.5-5.0: Wet	0.0-3.0: Moist 3.0-5.0: Wet	0.0-5.0: Moist ---	0.0-5.0: Moist ---	0.0-0.7: Dry 0.7-5.0: Moist	0.0-5.0: Moist ---	0.0-4.6: Moist 4.6-5.0: Wet	0.0-3.5: Moist 3.5-5.0: Wet	0.0-4.5: Moist 4.5-5.0: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L72A:													
Lundlake, depressional---	B/D	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-5.0: Wet ---	0.0-5.0: Wet ---	0.0-0.5: Moist 0.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0: Moist 2.0-5.0: Wet	0.0-1.5: Moist 1.5-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet	0.0-1.0: Moist 1.0-5.0: Wet
Forestcity------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
L110E:													
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Cokato----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Belview---------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
L110F:													
Lester----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Ridgeton--------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
Cokato----------	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
L110F:													
Belview---------	B	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist	0.0-5.0: Moist
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet
L131A:													
Litchfield------	B	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.3: Moist 2.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
Darfur----------	B/D	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet
Crowfork--------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-0.7: Dry 0.7-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
L132A:													
Hamel----------	B/D	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.7: Moist 0.7-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-3.3: Moist 3.3-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-1.6: Moist 1.6-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.3: Moist 1.3-6.7: Wet
Glencoe, depressional---	B/D	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet
Hamel, overwash	B	0.0-3.6: Moist 3.6-6.7: Wet	0.0-4.3: Moist 4.3-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-2.6: Moist 2.6-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet
Terril----------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-4.6: Moist 4.6-6.7: Wet	0.0-3.6: Moist 3.6-6.7: Wet	0.0-3.9: Moist 3.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-5.9: Moist 5.9-6.7: Wet	0.0-4.6: Moist 4.6-6.7: Wet	0.0-5.2: Moist 5.2-6.7: Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
M-W. Water, miscellaneous													
U1A. Urban land-Udorthents, wet substratum													
U2A. Udorthents, wet substratum													
U3B. Udorthents (cut and fill land)													
U4A. Urban land-Udipsamments (cut and fill land)													
U5A. Urban land-Udorthents, wet substratum													
U6B. Urban land-Udorthents (cut and fill land)													
W. Water													

Table 21.--Flooding Frequency and Duration

(See text for definitions of terms used in this table. Absence of an entry indicates that no estimate was made)

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D1B:												
Anoka, terrace--	None	None	None	None	None	None	None	None	None	None	None	None
Zimmerman, terrace--------	None	None	None	None	None	None	None	None	None	None	None	None
Kost----------	None	None	None	None	None	None	None	None	None	None	None	None
D1C:												
Anoka, terrace--	None	None	None	None	None	None	None	None	None	None	None	None
Zimmerman, terrace--------	None	None	None	None	None	None	None	None	None	None	None	None
Kost----------	None	None	None	None	None	None	None	None	None	None	None	None
D2A:												
Elkriver, rarely flooded--------	None	None	Rare Very brief	Rare Very brief	Rare Very brief	Rare Very brief	None	None	None	None	None	None
Mosford, rarely flooded--------	None	None	Rare Very brief	Rare Very brief	Rare Very brief	Rare Very brief	None	None	None	None	None	None
Elkriver, occasionally flooded--------	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
D3A:												
Elkriver, occasionally flooded--------	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D3A:												
Fordum, frequently flooded	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None
Winterfield, occasionally flooded	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	None	None	None	None	None
D4A:												
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum	None	None	None	None	None	None	None	None	None	None	None	None
Almora	None	None	None	None	None	None	None	None	None	None	None	None
D4B:												
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum	None	None	None	None	None	None	None	None	None	None	None	None
Almora	None	None	None	None	None	None	None	None	None	None	None	None
D4C:												
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum	None	None	None	None	None	None	None	None	None	None	None	None
Almora	None	None	None	None	None	None	None	None	None	None	None	None
D5B:												
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
Two Inlets	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D5C:												
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Two Inlets------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
D5D:												
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Two Inlets------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
D6A:												
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
D6B:												
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
D6C:												
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D7A:												
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None
D7B:												
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None
D7C:												
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None
D8B:												
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Arvilla, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
D8C:												
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Corliss---------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
D8D:												
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Corliss---------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
D8E:												
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Corliss---------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
D10A:												
Forada----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D10A:												
Depressional soil----------	None	None	None	None	None	None	None	None	None	None	None	None
D11A:												
Lindaas---------	None	None	None	None	None	None	None	None	None	None	None	None
Lindaas, sandy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Depressional soil----------	None	None	None	None	None	None	None	None	None	None	None	None
D12B:												
Bygland, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, sandy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Lindaas---------	None	None	None	None	None	None	None	None	None	None	None	None
Depressional soil----------	None	None	None	None	None	None	None	None	None	None	None	None
D12C2:												
Bygland, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, sandy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Lindaas---------	None	None	None	None	None	None	None	None	None	None	None	None
Depressional soil----------	None	None	None	None	None	None	None	None	None	None	None	None
D13A:												
Langola, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
D13B:												
Langola, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D13B:												
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
D15A:												
Seelyeville, drained--------	None	None	None	None	None	None	None	None	None	None	None	None
Markey, drained	None	None	None	None	None	None	None	None	None	None	None	None
Mineral soil, drained--------	None	None	None	None	None	None	None	None	None	None	None	None
D16A:												
Seelyeville, ponded---------	None	None	None	None	None	None	None	None	None	None	None	None
Markey, ponded--	None	None	None	None	None	None	None	None	None	None	None	None
Mineral soil, ponded---------	None	None	None	None	None	None	None	None	None	None	None	None
D17A:												
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
Isan----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
D18B:												
Braham, terrace-	None	None	None	None	None	None	None	None	None	None	None	None
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
D19A:												
Fordum, frequently flooded--------	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None
Winterfield, frequently flooded--------	None	None	Frequent Long	Frequent Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D19A:												
Fordum, occasionally flooded	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
D20A:												
Isan	None	None	None	None	None	None	None	None	None	None	None	None
Isan, depressional	None	None	None	None	None	None	None	None	None	None	None	None
Duelm	None	None	None	None	None	None	None	None	None	None	None	None
D21A:												
Isan, depressional	None	None	None	None	None	None	None	None	None	None	None	None
Isan	None	None	None	None	None	None	None	None	None	None	None	None
D23A:												
Southhaven	None	None	None	None	None	None	None	None	None	None	None	None
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
Mosford	None	None	None	None	None	None	None	None	None	None	None	None
D24A:												
Sedgeville, occasionally flooded	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
Elkriver, occasionally flooded	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
D25A:												
Soderville, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Forada	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D26A:												
Foldahl, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Isan----------	None	None	None	None	None	None	None	None	None	None	None	None
D27A:												
Dorset, loamy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
D28B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, sandy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
D29B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard, bedrock substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None
D30A:												
Seelyeville, surface drained	None	None	None	None	None	None	None	None	None	None	None	None
Markey, surface drained--------	None	None	None	None	None	None	None	None	None	None	None	None
Mineral soil, surface drained	None	None	None	None	None	None	None	None	None	None	None	None
D31A:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D31A:												
Duelm	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
Isan	None	None	None	None	None	None	None	None	None	None	None	None
D33B:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
D33C:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
D34B:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
Mosford	None	None	None	None	None	None	None	None	None	None	None	None
D35A:												
Elkriver, occasionally flooded	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
Fordum, occasionally flooded	None	None	Occasional Long	Occasional Long	Occasional Long	Occasional Long	Occasional Brief	Occasional Brief	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D35A:												
Udipsamments----	None	None	None	None	None	None	None	None	None	None	None	None
Winterfield, occasionally flooded--------	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
D37F:												
Dorset, bedrock substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Rock outcrop.												
Hubbard, bedrock substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
D40A:												
Kratka, thick solum----------	None	None	None	None	None	None	None	None	None	None	None	None
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
Foldahl, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
D41C:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Waukon----------	None	None	None	None	None	None	None	None	None	None	None	None
Braham----------	None	None	None	None	None	None	None	None	None	None	None	None
D43A:												
Gonvick, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Braham----------	None	None	None	None	None	None	None	None	None	None	None	None
GP.												
Pits, gravel- Udipsamments												
L2B:												
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L2B:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L2C:												
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
L2D:												
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
L2E:												
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
L3A:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L3B:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L3C:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L4B:												
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L4C:												
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L4D:												
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L6A:												
Biscay----------	None	None	None	None	None	None	None	None	None	None	None	None
Biscay, depressional---	None	None	None	None	None	None	None	None	None	None	None	None
Mayer-----------	None	None	None	None	None	None	None	None	None	None	None	None
L7A:												
Biscay, depressional---	None	None	None	None	None	None	None	None	None	None	None	None
Biscay----------	None	None	None	None	None	None	None	None	None	None	None	None
Mayer-----------	None	None	None	None	None	None	None	None	None	None	None	None
L8A:												
Darfur----------	None	None	None	None	None	None	None	None	None	None	None	None
Dassel----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L9A:												
Minnetonka------	None	None	None	None	None	None	None	None	None	None	None	None
Depressional soil----------	None	None	None	None	None	None	None	None	None	None	None	None
L10B:												
Kasota----------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
Wet soil in swales---------	None	None	None	None	None	None	None	None	None	None	None	None
L11B:												
Grays----------	None	None	None	None	None	None	None	None	None	None	None	None
Kasota----------	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
L12A:												
Muskego, frequently flooded--------	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None
Blue Earth, frequently flooded--------	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None
Houghton, frequently flooded--------	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None
Oshawa, frequently flooded--------	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None
L13A:												
Klossner, drained--------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L13A:												
Mineral soil, drained	None	None	None	None	None	None	None	None	None	None	None	None
Houghton, drained	None	None	None	None	None	None	None	None	None	None	None	None
L14A:												
Houghton, drained	None	None	None	None	None	None	None	None	None	None	None	None
Klossner, drained	None	None	None	None	None	None	None	None	None	None	None	None
Mineral soil, drained	None	None	None	None	None	None	None	None	None	None	None	None
L15A:												
Klossner, ponded	None	None	None	None	None	None	None	None	None	None	None	None
Okoboji, ponded	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe, ponded	None	None	None	None	None	None	None	None	None	None	None	None
Houghton, ponded	None	None	None	None	None	None	None	None	None	None	None	None
L16A:												
Muskego, ponded	None	None	None	None	None	None	None	None	None	None	None	None
Blue Earth, ponded	None	None	None	None	None	None	None	None	None	None	None	None
Houghton, ponded	None	None	None	None	None	None	None	None	None	None	None	None
Klossner, ponded	None	None	None	None	None	None	None	None	None	None	None	None
L17B:												
Angus	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
Moon	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L18A:												
Shields	None	None	None	None	None	None	None	None	None	None	None	None
Lerdal	None	None	None	None	None	None	None	None	None	None	None	None
Mazaska	None	None	None	None	None	None	None	None	None	None	None	None
L19B:												
Moon	None	None	None	None	None	None	None	None	None	None	None	None
Finchford	None	None	None	None	None	None	None	None	None	None	None	None
L20B:												
Fedji, silty substratum	None	None	None	None	None	None	None	None	None	None	None	None
Finchford	None	None	None	None	None	None	None	None	None	None	None	None
L21A:												
Canisteo	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe	None	None	None	None	None	None	None	None	None	None	None	None
L22C2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Angus	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
L22D2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L22E:												
Lester, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None
L22F:												
Lester, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
L23A:												
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe---------	None	None	None	None	None	None	None	None	None	None	None	None
Nessel----------	None	None	None	None	None	None	None	None	None	None	None	None
L24A:												
Glencoe, depressional---	None	None	None	None	None	None	None	None	None	None	None	None
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None
L25A:												
Le Sueur--------	None	None	None	None	None	None	None	None	None	None	None	None
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None
Angus----------	None	None	None	None	None	None	None	None	None	None	None	None
L26A:												
Shorewood-------	None	None	None	None	None	None	None	None	None	None	None	None
Minnetonka------	None	None	None	None	None	None	None	None	None	None	None	None
Good Thunder----	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L26B:												
Shorewood-------	None	None	None	None	None	None	None	None	None	None	None	None
Good Thunder----	None	None	None	None	None	None	None	None	None	None	None	None
Minnetonka------	None	None	None	None	None	None	None	None	None	None	None	None
L26C2:												
Shorewood, eroded---------	None	None	None	None	None	None	None	None	None	None	None	None
Minnetonka------	None	None	None	None	None	None	None	None	None	None	None	None
L27A:												
Suckercreek, frequently flooded--------	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None
Suckercreek, occasionally flooded--------	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
Hanlon, occasionally flooded--------	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
L28A:												
Suckercreek, occasionally flooded--------	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
Suckercreek, frequently flooded--------	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L28A:												
Hanlon, occasionally flooded--------	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
L29A:												
Hanlon, occasionally flooded--------	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
Suckercreek, occasionally flooded--------	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
Suckercreek, frequently flooded--------	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None
L30A:												
Medo, surface drained--------	None	None	None	None	None	None	None	None	None	None	None	None
Medo, drained---	None	None	None	None	None	None	None	None	None	None	None	None
Mineral soil, drained--------	None	None	None	None	None	None	None	None	None	None	None	None
L31A:												
Medo, ponded----	None	None	None	None	None	None	None	None	None	None	None	None
Dassel, ponded--	None	None	None	None	None	None	None	None	None	None	None	None
Biscay, ponded--	None	None	None	None	None	None	None	None	None	None	None	None
Houghton, ponded	None	None	None	None	None	None	None	None	None	None	None	None
Muskego, ponded	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L32D:												
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
L32F:												
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
L35A:												
Lerdal----------	None	None	None	None	None	None	None	None	None	None	None	None
Mazaska---------	None	None	None	None	None	None	None	None	None	None	None	None
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None
Le Sueur--------	None	None	None	None	None	None	None	None	None	None	None	None
L36A:												
Hamel, overwash	None	None	None	None	None	None	None	None	None	None	None	None
Hamel-----------	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe---------	None	None	None	None	None	None	None	None	None	None	None	None
L37B:												
Angus, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Angus, eroded---	None	None	None	None	None	None	None	None	None	None	None	None
Le Sueur--------	None	None	None	None	None	None	None	None	None	None	None	None
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L38A:												
Rushriver, occasionally flooded	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
Oshawa, frequently flooded	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None
Minneiska, occasionally flooded	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
Algansee, occasionally flooded	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
L39A:												
Minneiska, occasionally flooded	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
Rushriver, occasionally flooded	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
Oshawa, frequently flooded	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	Occasional Brief	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L39A:												
Algansee, occasionally flooded	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
L40B:												
Angus	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny	None	None	None	None	None	None	None	None	None	None	None	None
Lerdal	None	None	None	None	None	None	None	None	None	None	None	None
Mazaska	None	None	None	None	None	None	None	None	None	None	None	None
L41C2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane	None	None	None	None	None	None	None	None	None	None	None	None
L41D2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
L41E:												
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L41F:												
Lester----------	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny--------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane-------	None	None	None	None	None	None	None	None	None	None	None	None
L42B:												
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
Grays-----------	None	None	None	None	None	None	None	None	None	None	None	None
L42C:												
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
Grays-----------	None	None	None	None	None	None	None	None	None	None	None	None
L42D:												
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
Grays-----------	None	None	None	None	None	None	None	None	None	None	None	None
L42E:												
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
Grays-----------	None	None	None	None	None	None	None	None	None	None	None	None
L42F:												
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
Grays-----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L43A:												
Brouillett, occasionally flooded	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
Minneiska, occasionally flooded	None	None	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Very brief	Occasional Very brief	None	None	None	None
Rushriver, occasionally flooded	None	None	Occasional Brief	Occasional Long	Occasional Long	Occasional Long	Occasional Very brief	Occasional Very brief	None	None	None	None
L44A:												
Nessel	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
Angus	None	None	None	None	None	None	None	None	None	None	None	None
L45A:												
Dundas	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
Nessel	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe	None	None	None	None	None	None	None	None	None	None	None	None
L46A:												
Tomall	None	None	None	None	None	None	None	None	None	None	None	None
Rasset	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
L47A:												
Eden Prairie	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L47A:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
L47B:												
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
L47C:												
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
L49A:												
Klossner, surface drained	None	None	None	None	None	None	None	None	None	None	None	None
Klossner, drained--------	None	None	None	None	None	None	None	None	None	None	None	None
Mineral soil, drained--------	None	None	None	None	None	None	None	None	None	None	None	None
L50A:												
Houghton, surface drained	None	None	None	None	None	None	None	None	None	None	None	None
Muskego, surface drained--------	None	None	None	None	None	None	None	None	None	None	None	None
Klossner, drained--------	None	None	None	None	None	None	None	None	None	None	None	None
Mineral soil, drained--------	None	None	None	None	None	None	None	None	None	None	None	None
L52C:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Lester----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L52C:												
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
L52E:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Lester----------	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
L53B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Moon----------	None	None	None	None	None	None	None	None	None	None	None	None
Lester----------	None	None	None	None	None	None	None	None	None	None	None	None
L54A:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Dundas----------	None	None	None	None	None	None	None	None	None	None	None	None
Nessel----------	None	None	None	None	None	None	None	None	None	None	None	None
L55B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L55C:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L56A:												
Muskego, frequently flooded	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Brief	Occasional Brief	None	None	None	None	None
Klossner, frequently flooded	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Brief	Occasional Brief	None	None	None	None	None
Suckercreek, frequently flooded	None	None	Frequent Long	Frequent Long	Frequent Long	Frequent Long	Occasional Brief	None	None	None	None	None
L58B:												
Koronis	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
L58C2:												
Koronis, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
L58D2:												
Koronis, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
L58E:												
Koronis	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L58E:												
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
L59A:												
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
Lundlake, depressional---	None	None	None	None	None	None	None	None	None	None	None	None
Marcellon-------	None	None	None	None	None	None	None	None	None	None	None	None
L60B:												
Angus----------	None	None	None	None	None	None	None	None	None	None	None	None
Moon----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
L61C2:												
Lester, eroded--	None	None	None	None	None	None	None	None	None	None	None	None
Metea, eroded---	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
L61D2:												
Lester, eroded--	None	None	None	None	None	None	None	None	None	None	None	None
Metea, eroded---	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
L61E:												
Lester----------	None	None	None	None	None	None	None	None	None	None	None	None
Metea----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L61E:												
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None
L62B:												
Koronis---------	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
L62C2:												
Koronis, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
L62D2:												
Koronis, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
L62E:												
Koronis---------	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
L64A:												
Tadkee----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L64A:												
Tadkee, depressional	None	None	None	None	None	None	None	None	None	None	None	None
Better drained soil	None	None	None	None	None	None	None	None	None	None	None	None
Granby	None	None	None	None	None	None	None	None	None	None	None	None
Less sandy soil	None	None	None	None	None	None	None	None	None	None	None	None
L70C2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
L70D2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
L70E:												
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
L71C:												
Metea	None	None	None	None	None	None	None	None	None	None	None	None
Lester	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L71C:												
Moon	None	None	None	None	None	None	None	None	None	None	None	None
L72A:												
Lundlake, depressional	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity	None	None	None	None	None	None	None	None	None	None	None	None
L110E:												
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
Cokato	None	None	None	None	None	None	None	None	None	None	None	None
Belview	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
L110F:												
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
Cokato	None	None	None	None	None	None	None	None	None	None	None	None
Belview	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
L131A:												
Litchfield	None	None	None	None	None	None	None	None	None	None	None	None
Darfur	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork	None	None	None	None	None	None	None	None	None	None	None	None
L132A:												
Hamel	None	None	None	None	None	None	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L132A:												
Glencoe, depressional	None	None	None	None	None	None	None	None	None	None	None	None
Hamel, overwash	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
M-W.												
Water, miscellaneous												
U1A:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Udorthents, wet substratum	None	None	None	None	None	None	None	None	None	None	None	None
U2A:												
Udorthents, wet substratum	None	None	None	None	None	None	None	None	None	None	None	None
U3B:												
Udorthents (cut and fill land)	None	None	None	None	None	None	None	None	None	None	None	None
U4A:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Udipsamments (cut and fill land)	None	None	None	None	None	None	None	None	None	None	None	None
U5A:												
Urban land	None	None	None	Rare Extremely brief	Rare Extremely brief	Rare Extremely brief	None	None	None	None	None	None
Udorthents, wet substratum	None	None	None	Rare Extremely brief	Rare Extremely brief	Rare Extremely brief	None	None	None	None	None	None

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
U6B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Udorthents (cut and fill land)	None	None	None	None	None	None	None	None	None	None	None	None
W. Water												

Table 22.--Ponding Frequency, Duration, and Depth

(Depth refers to the depth, in feet, of the water above the surface. See text for definitions of terms used in this table. Absence of an entry indicates that no estimate was made)

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D1B:												
Anoka, terrace--	None	None	None	None	None	None	None	None	None	None	None	None
Zimmerman, terrace--------	None	None	None	None	None	None	None	None	None	None	None	None
Kost----------	None	None	None	None	None	None	None	None	None	None	None	None
D1C:												
Anoka, terrace--	None	None	None	None	None	None	None	None	None	None	None	None
Zimmerman, terrace--------	None	None	None	None	None	None	None	None	None	None	None	None
Kost----------	None	None	None	None	None	None	None	None	None	None	None	None
D2A:												
Elkriver, rarely flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford, rarely flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Elkriver, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
D3A:												
Elkriver, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Fordum, frequently flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Winterfield, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D4A:												
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Almora----------	None	None	None	None	None	None	None	None	None	None	None	None
D4B:												
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Almora----------	None	None	None	None	None	None	None	None	None	None	None	None
D4C:												
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Almora----------	None	None	None	None	None	None	None	None	None	None	None	None
D5B:												
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Two Inlets------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
D5C:												
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Two Inlets------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D5D:												
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Two Inlets------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
D6A:												
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
D6B:												
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
D6C:												
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
D7A:												
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None
D7B:												
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D7C:												
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None
D8B:												
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Arvilla, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
D8C:												
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Corliss---------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
D8D:												
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Corliss---------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	
D8E:												
Sandberg--------	None	None	None	None	None	None	None	None	None	None	None	None
Corliss---------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
D10A:												
Forada----------	None	None	None	None	None	None	None	None	None	None	None	None
Depressional soil----------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D11A:												
Lindaas---------	None	None	None	None	None	None	None	None	None	None	None	None
Lindaas, sandy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Depressional soil----------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
D12B:												
Bygland, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, sandy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Lindaas---------	None	None	None	None	None	None	None	None	None	None	None	None
Depressional soil----------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
D12C2:												
Bygland, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, sandy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Lindaas---------	None	None	None	None	None	None	None	None	None	None	None	None
Depressional soil----------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
D13A:												
Langola, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D13B:												
Langola, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
D15A:												
Seelyeville, drained--------	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Markey, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Mineral soil, drained--------	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
D16A:												
Seelyeville, ponded---------	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Markey, ponded--	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Mineral soil, ponded---------	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D17A:												
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
Isan----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
D18B:												
Braham, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
D19A:												
Fordum, frequently flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Winterfield, frequently flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Fordum, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
D20A:												
Isan----------	None	None	None	None	None	None	None	None	None	None	None	None
Isan, depressional---	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
D21A:												
Isan, depressional---	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Isan----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D23A:												
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None
D24A:												
Sedgeville, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Elkriver, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
D25A:												
Soderville, terrace--------	None	None	None	None	None	None	None	None	None	None	None	None
Forada----------	None	None	None	None	None	None	None	None	None	None	None	None
D26A:												
Foldahl, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Isan----------	None	None	None	None	None	None	None	None	None	None	None	None
D27A:												
Dorset, loamy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven------	None	None	None	None	None	None	None	None	None	None	None	None
D28B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, sandy substratum-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D29B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard, bedrock substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None
D30A:												
Seelyeville, surface drained	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Markey, surface drained--------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Mineral soil, surface drained	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
D31A:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Isan----------	None	None	None	None	None	None	None	None	None	None	None	None
D33B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D33C:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Dorset----------	None	None	None	None	None	None	None	None	None	None	None	None
Verndale, acid substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
D34B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard---------	None	None	None	None	None	None	None	None	None	None	None	None
Mosford---------	None	None	None	None	None	None	None	None	None	None	None	None
D35A:												
Elkriver, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Fordum, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Udipsamments----	None	None	None	None	None	None	None	None	None	None	None	None
Winterfield, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
D37F:												
Dorset, bedrock substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Rock outcrop.												
Hubbard, bedrock substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
D40A:												
Kratka, thick solum----------	None	None	None	None	None	None	None	None	None	None	None	None
Duelm----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
D40A:												
Foldahl, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
D41C:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Waukon----------	None	None	None	None	None	None	None	None	None	None	None	None
Braham----------	None	None	None	None	None	None	None	None	None	None	None	None
D43A:												
Gonvick, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Braham----------	None	None	None	None	None	None	None	None	None	None	None	None
GP.												
Pits, gravel-Udipsamments												
L2B:												
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L2C:												
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
L2D:												
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L2E:												
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
L3A:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L3B:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L3C:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Tomall----------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L4B:												
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L4C:												
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L4D:												
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L6A:												
Biscay	None	None	None	None	None	None	None	None	None	None	None	None
Biscay, depressional	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Mayer	None	None	None	None	None	None	None	None	None	None	None	None
L7A:												
Biscay, depressional	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Biscay	None	None	None	None	None	None	None	None	None	None	None	None
Mayer	None	None	None	None	None	None	None	None	None	None	None	None
L8A:												
Darfur	None	None	None	None	None	None	None	None	None	None	None	None
Dassel	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
L9A:												
Minnetonka	None	None	None	None	None	None	None	None	None	None	None	None
Depressional soil	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
L10B:												
Kasota	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie	None	None	None	None	None	None	None	None	None	None	None	None
Wet soil in swales	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L11B:												
Grays	None	None	None	None	None	None	None	None	None	None	None	None
Kasota	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork	None	None	None	None	None	None	None	None	None	None	None	None
L12A:												
Muskego, frequently flooded	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.5
Blue Earth, frequently flooded	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.5
Houghton, frequently flooded	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.5
Oshawa, frequently flooded	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.5
L13A:												
Klossner, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L13A:												
Mineral soil, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Houghton, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
L14A:												
Houghton, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Klossner, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Mineral soil, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
L15A:												
Klossner, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Okoboji, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Glencoe, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L15A:												
Houghton, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
L16A:												
Muskego, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Blue Earth, ponded---------	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Houghton, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Klossner, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
L17B:												
Angus----------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Moon----------	None	None	None	None	None	None	None	None	None	None	None	None
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None
L18A:												
Shields---------	None	None	None	None	None	None	None	None	None	None	None	None
Lerdal----------	None	None	None	None	None	None	None	None	None	None	None	None
Mazaska---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L19B:												
Moon----------	None	None	None	None	None	None	None	None	None	None	None	None
Finchford-------	None	None	None	None	None	None	None	None	None	None	None	None
L20B:												
Fedji, silty substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
Finchford-------	None	None	None	None	None	None	None	None	None	None	None	None
L21A:												
Canisteo--------	None	None	None	None	None	None	None	None	None	None	None	None
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe---------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
L22C2:												
Lester, eroded--	None	None	None	None	None	None	None	None	None	None	None	None
Angus----------	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
L22D2:												
Lester, eroded--	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None
L22E:												
Lester, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L22F:												
Lester, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
L23A:												
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe---------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Nessel----------	None	None	None	None	None	None	None	None	None	None	None	None
L24A:												
Glencoe, depressional---	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None
L25A:												
Le Sueur--------	None	None	None	None	None	None	None	None	None	None	None	None
Cordova---------	None	None	None	None	None	None	None	None	None	None	None	None
Angus----------	None	None	None	None	None	None	None	None	None	None	None	None
L26A:												
Shorewood-------	None	None	None	None	None	None	None	None	None	None	None	None
Minnetonka------	None	None	None	None	None	None	None	None	None	None	None	None
Good Thunder----	None	None	None	None	None	None	None	None	None	None	None	None
L26B:												
Shorewood-------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L26B:												
Good Thunder----	None	None	None	None	None	None	None	None	None	None	None	None
Minnetonka------	None	None	None	None	None	None	None	None	None	None	None	None
L26C2:												
Shorewood, eroded---------	None	None	None	None	None	None	None	None	None	None	None	None
Minnetonka------	None	None	None	None	None	None	None	None	None	None	None	None
L27A:												
Suckercreek, frequently flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Suckercreek, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Hanlon, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
L28A:												
Suckercreek, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Suckercreek, frequently flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Hanlon, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
L29A:												
Hanlon, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
Suckercreek, occasionally flooded--------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L29A:												
Suckercreek, frequently flooded	None	None	None	None	None	None	None	None	None	None	None	None
L30A:												
Medo, surface drained	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Medo, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Mineral soil, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
L31A:												
Medo, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Dassel, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Biscay, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
Houghton, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L31A:												
Muskego, ponded	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 3.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 0.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.5	Frequent Very long Depth: 2.0
L32D:												
Hawick	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork	None	None	None	None	None	None	None	None	None	None	None	None
Tomall	None	None	None	None	None	None	None	None	None	None	None	None
L32F:												
Hawick	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork	None	None	None	None	None	None	None	None	None	None	None	None
Tomall	None	None	None	None	None	None	None	None	None	None	None	None
L35A:												
Lerdal	None	None	None	None	None	None	None	None	None	None	None	None
Mazaska	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
Le Sueur	None	None	None	None	None	None	None	None	None	None	None	None
L36A:												
Hamel, overwash	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
L37B:												
Angus, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Angus, eroded	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L37B:												
Le Sueur	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
L38A:												
Rushriver, occasionally flooded	None	None	None	None	None	None	None	None	None	None	None	None
Oshawa, frequently flooded	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.5
Minneiska, occasionally flooded	None	None	None	None	None	None	None	None	None	None	None	None
Algansee, occasionally flooded	None	None	None	None	None	None	None	None	None	None	None	None
L39A:												
Minneiska, occasionally flooded	None	None	None	None	None	None	None	None	None	None	None	None
Rushriver, occasionally flooded	None	None	None	None	None	None	None	None	None	None	None	None
Oshawa, frequently flooded	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 2.0	Frequent Very long Depth: 2.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.5	Frequent Very long Depth: 1.5
Algansee, occasionally flooded	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L40B:												
Angus	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny	None	None	None	None	None	None	None	None	None	None	None	None
Lerdal	None	None	None	None	None	None	None	None	None	None	None	None
Mazaska	None	None	None	None	None	None	None	None	None	None	None	None
L41C2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane	None	None	None	None	None	None	None	None	None	None	None	None
L41D2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
L41E:												
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
L41F:												
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L41F:												
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane	None	None	None	None	None	None	None	None	None	None	None	None
L42B:												
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
Grays	None	None	None	None	None	None	None	None	None	None	None	None
L42C:												
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
Grays	None	None	None	None	None	None	None	None	None	None	None	None
L42D:												
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
Grays	None	None	None	None	None	None	None	None	None	None	None	None
L42E:												
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
Grays	None	None	None	None	None	None	None	None	None	None	None	None
L42F:												
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
Grays	None	None	None	None	None	None	None	None	None	None	None	None
L43A:												
Brouillett, occasionally flooded	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L43A:												
Minneiska, occasionally flooded	None	None	None	None	None	None	None	None	None	None	None	None
Rushriver, occasionally flooded	None	None	None	None	None	None	None	None	None	None	None	None
L44A:												
Nessel	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
Angus	None	None	None	None	None	None	None	None	None	None	None	None
L45A:												
Dundas	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
Nessel	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
L46A:												
Tomall	None	None	None	None	None	None	None	None	None	None	None	None
Rasset	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
L47A:												
Eden Prairie	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
Rasset	None	None	None	None	None	None	None	None	None	None	None	None
L47B:												
Eden Prairie	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L47B:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
L47C:												
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
L49A:												
Klossner, surface drained	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Klossner, drained--------	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Mineral soil, drained--------	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
L50A:												
Houghton, surface drained	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Muskego, surface drained--------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L50A:												
Klossner, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Mineral soil, drained	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
L52C:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
L52E:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
L53B:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Moon	None	None	None	None	None	None	None	None	None	None	None	None
Lester	None	None	None	None	None	None	None	None	None	None	None	None
L54A:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Dundas	None	None	None	None	None	None	None	None	None	None	None	None
Nessel	None	None	None	None	None	None	None	None	None	None	None	None
L55B:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L55B:												
Rasset----------	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie----	None	None	None	None	None	None	None	None	None	None	None	None
L55C:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Hawick----------	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork--------	None	None	None	None	None	None	None	None	None	None	None	None
L56A:												
Muskego, frequently flooded--------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Klossner, frequently flooded--------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Suckercreek, frequently flooded--------	None	None	None	None	None	None	None	None	None	None	None	None
L58B:												
Koronis---------	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
L58C2:												
Koronis, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley, eroded	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L58C2:												
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
L58D2:												
Koronis, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
L58E:												
Koronis---------	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
Gotham----------	None	None	None	None	None	None	None	None	None	None	None	None
L59A:												
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
Lundlake, depressional---	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Marcellon-------	None	None	None	None	None	None	None	None	None	None	None	None
L60B:												
Angus-----------	None	None	None	None	None	None	None	None	None	None	None	None
Moon------------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel-----------	None	None	None	None	None	None	None	None	None	None	None	None
L61C2:												
Lester, eroded--	None	None	None	None	None	None	None	None	None	None	None	None
Metea, eroded---	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L61C2:												
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
L61D2:												
Lester, eroded--	None	None	None	None	None	None	None	None	None	None	None	None
Metea, eroded---	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
L61E:												
Lester----------	None	None	None	None	None	None	None	None	None	None	None	None
Metea----------	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton--------	None	None	None	None	None	None	None	None	None	None	None	None
L62B:												
Koronis---------	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
L62C2:												
Koronis, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L62D2:												
Koronis, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
L62E:												
Koronis---------	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley--------	None	None	None	None	None	None	None	None	None	None	None	None
Malardi---------	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity------	None	None	None	None	None	None	None	None	None	None	None	None
L64A:												
Tadkee----------	None	None	None	None	None	None	None	None	None	None	None	None
Tadkee, depressional---	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Frequent Brief Depth: 0.5	None	None	None	None	None	None
Better drained soil----------	None	None	None	None	None	None	None	None	None	None	None	None
Granby----------	None	None	Frequent Long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Long Depth: 1.0	Occasional Brief Depth: 0.5	None	None	None	None	None	None
Less sandy soil	None	None	None	None	None	None	None	None	None	None	None	None
L70C2:												
Lester, eroded--	None	None	None	None	None	None	None	None	None	None	None	None
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril----------	None	None	None	None	None	None	None	None	None	None	None	None
Hamel----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L70D2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
L70E:												
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
L71C:												
Metea	None	None	None	None	None	None	None	None	None	None	None	None
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Moon	None	None	None	None	None	None	None	None	None	None	None	None
L72A:												
Lundlake, depressional	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Forestcity	None	None	None	None	None	None	None	None	None	None	None	None
L110E:												
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
Cokato	None	None	None	None	None	None	None	None	None	None	None	None
Belview	None	None	None	None	None	None	None	None	None	None	None	None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
L110E:												
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
L110F:												
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
Cokato	None	None	None	None	None	None	None	None	None	None	None	None
Belview	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
L131A:												
Litchfield	None	None	None	None	None	None	None	None	None	None	None	None
Darfur	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork	None	None	None	None	None	None	None	None	None	None	None	None
L132A:												
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe, depressional	None	None	Frequent Long Depth: 0.5	Frequent Brief Depth: 1.0	None	None	None	None	None	None	None	None
Hamel, overwash	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
M-W.												
Water, miscellaneous												

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	February	March	April	May	June	July	August	September	October	November	December
U1A:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Udorthents, wet substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
U2A:												
Udorthents, wet substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
U3B:												
Udorthents (cut and fill land)	None	None	None	None	None	None	None	None	None	None	None	None
U4A:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Udipsamments (cut and fill land)----------	None	None	None	None	None	None	None	None	None	None	None	None
U5A:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Udorthents, wet substratum-----	None	None	None	None	None	None	None	None	None	None	None	None
U6B:												
Urban land------	None	None	None	None	None	None	None	None	None	None	None	None
Udorthents (cut and fill land)	None	None	None	None	None	None	None	None	None	None	None	None
W.												
Water												

Table 23.--Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and component name	Pct. of map unit	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
		Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
			In	In	In			
D1B:								
Anoka, terrace	55	---	>80	---	---	Moderate	Low	Moderate
Zimmerman, terrace	40	---	>80	---	---	Low	Low	Moderate
Kost	5	---	>80	---	---	Low	Low	Moderate
D1C:								
Anoka, terrace	45	---	>80	---	---	Moderate	Low	Moderate
Zimmerman, terrace	45	---	>80	---	---	Low	Low	Moderate
Kost	10	---	>80	---	---	Low	Low	Moderate
D2A:								
Elkriver, rarely flooded	85	---	>80	---	---	Moderate	Moderate	Low
Mosford, rarely flooded	10	---	>80	---	---	Low	Low	Moderate
Elkriver, occasionally flooded	5	---	>80	---	---	Moderate	Moderate	Low
D3A:								
Elkriver, occasionally flooded	80	---	>80	---	---	Moderate	Moderate	Low
Fordum, frequently flooded	15	---	>80	---	---	High	High	Low
Winterfield, occasionally flooded	5	---	>80	---	---	Moderate	Moderate	Moderate
D4A:								
Dorset	90	---	>80	---	---	Moderate	Low	Low
Verndale, acid substratum	8	---	>80	---	---	Moderate	Low	Moderate
Almora	2	---	>80	---	---	Moderate	Low	Low
D4B:								
Dorset	85	---	>80	---	---	Moderate	Low	Low
Verndale, acid substratum	10	---	>80	---	---	Moderate	Low	Moderate
Almora	5	---	>80	---	---	Moderate	Low	Low
D4C:								
Dorset	75	---	>80	---	---	Moderate	Low	Low
Verndale, acid substratum	15	---	>80	---	---	Moderate	Low	Moderate
Almora	10	---	>80	---	---	Moderate	Low	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
D5B:								
Dorset	65	---	>80	---	---	Moderate	Low	Low
Two Inlets	25	---	>80	---	---	Low	Low	Low
Verndale, acid substratum	5	---	>80	---	---	Moderate	Low	Moderate
Southhaven	5	---	>80	---	---	Moderate	Moderate	Low
D5C:								
Dorset	55	---	>80	---	---	Moderate	Low	Low
Two Inlets	30	---	>80	---	---	Low	Low	Low
Southhaven	10	---	>80	---	---	Moderate	Moderate	Low
Verndale, acid substratum	5	---	>80	---	---	Moderate	Low	Moderate
D5D:								
Dorset	50	---	>80	---	---	Moderate	Low	Low
Two Inlets	35	---	>80	---	---	Low	Low	Low
Southhaven	10	---	>80	---	---	Moderate	Moderate	Low
Verndale, acid substratum	5	---	>80	---	---	Moderate	Low	Moderate
D6A:								
Verndale, acid substratum	90	---	>80	---	---	Moderate	Low	Moderate
Dorset	7	---	>80	---	---	Moderate	Low	Low
Hubbard	3	---	>80	---	---	Low	Low	Moderate
D6B:								
Verndale, acid substratum	85	---	>80	---	---	Moderate	Low	Moderate
Dorset	10	---	>80	---	---	Moderate	Low	Low
Hubbard	5	---	>80	---	---	Low	Low	Moderate
D6C:								
Verndale, acid substratum	80	---	>80	---	---	Moderate	Low	Moderate
Dorset	15	---	>80	---	---	Moderate	Low	Low
Hubbard	5	---	>80	---	---	Low	Low	Moderate
D7A:								
Hubbard	95	---	>80	---	---	Low	Low	Moderate
Mosford	5	---	>80	---	---	Low	Low	Moderate
D7B:								
Hubbard	90	---	>80	---	---	Low	Low	Moderate
Mosford	10	---	>80	---	---	Low	Low	Moderate

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
D7C:								
Hubbard	80	---	>80	---	---	Low	Low	Moderate
Sandberg	10	---	>80	---	---	Low	Moderate	Low
Mosford	10	---	>80	---	---	Low	Low	Moderate
D8B:								
Sandberg	95	---	>80	---	---	Low	Moderate	Low
Arvilla, MAP >25	5	---	>80	---	---	Moderate	Low	Low
D8C:								
Sandberg	80	---	>80	---	---	Low	Moderate	Low
Corliss	15	---	>80	---	---	Low	Low	Low
Southhaven	5	---	>80	---	---	Moderate	Moderate	Low
D8D:								
Sandberg	80	---	>80	---	---	Low	Moderate	Low
Corliss	10	---	>80	---	---	Low	Low	Low
Southhaven	10	---	>80	---	---	Moderate	Moderate	Low
D8E:								
Sandberg	80	---	>80	---	---	Low	Moderate	Low
Corliss	10	---	>80	---	---	Low	Low	Low
Southhaven	10	---	>80	---	---	Moderate	Moderate	Low
D10A:								
Forada	95	---	>80	---	---	High	High	Low
Depressional soil	5	---	>80	---	---	High	High	Low
D11A:								
Lindaas	80	---	>80	---	---	High	High	Low
Lindaas, sandy substratum	10	---	>80	---	---	High	High	Low
Depressional soil	10	---	>80	---	---	High	High	Low
D12B:								
Bygland, MAP >25	70	---	>80	---	---	High	High	Low
Bygland, sandy substratum	15	---	>80	---	---	High	High	Low
Lindaas	10	---	>80	---	---	High	High	Low
Depressional soil	5	---	>80	---	---	High	High	Low
D12C2:								
Bygland, MAP >25	70	---	>80	---	---	High	High	Low
Bygland, sandy substratum	15	---	>80	---	---	High	High	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
D12C2:								
Lindaas	10	---	>80	---	---	High	High	Low
Depressional soil	5	---	>80	---	---	High	High	Low
D13A:								
Langola, terrace	85	---	>80	---	---	Low	Moderate	Moderate
Duelm	10	---	>80	---	---	Moderate	Low	Moderate
Hubbard	5	---	>80	---	---	Low	Low	Moderate
D13B:								
Langola, terrace	85	---	>80	---	---	Low	Moderate	Moderate
Hubbard	10	---	>80	---	---	Low	Low	Moderate
Duelm	5	---	>80	---	---	Moderate	Low	Moderate
D15A:								
Seelyeville, drained	65	---	>80	---	66-78	High	High	Moderate
Markey, drained	25	---	>80	8-22	16-44	High	High	Moderate
Mineral soil, drained	10	---	>80	---	---	Moderate	High	Moderate
D16A:								
Seelyeville, ponded	45	---	>80	---	66-78	High	High	Moderate
Markey, ponded	45	---	>80	8-22	16-44	High	High	Moderate
Mineral soil, ponded	10	---	>80	---	---	Moderate	High	Moderate
D17A:								
Duelm	90	---	>80	---	---	Moderate	Low	Moderate
Isan	8	---	>80	---	---	Moderate	High	Moderate
Hubbard	2	---	>80	---	---	Low	Low	Moderate
D18B:								
Braham, terrace	85	---	>80	---	---	Low	Moderate	Moderate
Duelm	15	---	>80	---	---	Moderate	Low	Moderate
D19A:								
Fordum, frequently flooded	65	---	>80	---	---	High	High	Low
Winterfield, frequently flooded	25	---	>80	---	---	Moderate	Moderate	Moderate
Fordum, occasionally flooded	10	---	>80	---	---	High	High	Low
D20A:								
Isan	85	---	>80	---	---	Moderate	High	Moderate
Isan, depressional	10	---	>80	---	---	Moderate	High	Moderate
Duelm	5	---	>80	---	---	Moderate	Low	Moderate

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
D21A:								
Isan, depressional	85	---	>80	---	---	Moderate	High	Moderate
Isan	15	---	>80	---	---	Moderate	High	Moderate
D23A:								
Southhaven	90	---	>80	---	---	Moderate	Moderate	Low
Dorset	5	---	>80	---	---	Moderate	Low	Low
Mosford	5	---	>80	---	---	Low	Low	Moderate
D24A:								
Sedgeville, occasionally flooded	85	---	>80	---	---	High	High	Moderate
Elkriver, occasionally flooded	15	---	>80	---	---	Moderate	Moderate	Low
D25A:								
Soderville, terrace	90	---	>80	---	---	Moderate	Low	Moderate
Forada	10	---	>80	---	---	High	High	Low
D26A:								
Foldahl, MAP >25	90	---	>80	---	---	Low	Moderate	Moderate
Hubbard	5	---	>80	---	---	Low	Low	Moderate
Isan	5	---	>80	---	---	Moderate	High	Moderate
D27A:								
Dorset, loamy substratum	80	---	>80	---	---	Moderate	Low	Low
Dorset	15	---	>80	---	---	Moderate	Low	Low
Southhaven	5	---	>80	---	---	Moderate	Moderate	Low
D28B:								
Urban land	75	---	---	---	---	---	---	---
Bygland, MAP >25	20	---	>80	---	---	High	High	Low
Bygland, sandy substratum	5	---	>80	---	---	High	High	Low
D29B:								
Urban land	70	---	---	---	---	---	---	---
Hubbard, bedrock substratum	20	Bedrock (lithic)	40-80	---	---	Low	Low	Moderate
Hubbard	5	---	>80	---	---	Low	Low	Moderate
Mosford	5	---	>80	---	---	Low	Low	Moderate
D30A:								
Seelyeville, surface drained	45	---	>80	---	66-78	High	High	Moderate

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
D30A:								
Markey, surface drained	45	---	>80	8-22	16-44	High	High	Moderate
Mineral soil, surface drained	10	---	>80	---	---	Moderate	High	Moderate
D31A:								
Urban land	70	---	---	---	---	---	---	---
Duelm	20	---	>80	---	---	Moderate	Low	Moderate
Hubbard	5	---	>80	---	---	Low	Low	Moderate
Isan	5	---	>80	---	---	Moderate	High	Moderate
D33B:								
Urban land	70	---	---	---	---	---	---	---
Dorset	20	---	>80	---	---	Moderate	Low	Low
Verndale, acid substratum	5	---	>80	---	---	Moderate	Low	Moderate
Hubbard	5	---	>80	---	---	Low	Low	Moderate
D33C:								
Urban land	70	---	---	---	---	---	---	---
Dorset	20	---	>80	---	---	Moderate	Low	Low
Verndale, acid substratum	5	---	>80	---	---	Moderate	Low	Moderate
Hubbard	5	---	>80	---	---	Low	Low	Moderate
D34B:								
Urban land	75	---	---	---	---	---	---	---
Hubbard	20	---	>80	---	---	Low	Low	Moderate
Mosford	5	---	>80	---	---	Low	Low	Moderate
D35A:								
Elkriver, occasionally flooded	70	---	>80	---	---	Moderate	Moderate	Low
Fordum, occasionally flooded	20	---	>80	---	---	High	High	Low
Udipsamments	5	---	---	---	---	---	---	---
Winterfield, occasionally flooded	5	---	>80	---	---	Moderate	Moderate	Moderate
D37F:								
Dorset, bedrock substratum	70	Bedrock (lithic)	40-80	---	---	Moderate	Low	Low
Rock outcrop	20	Bedrock (lithic)	---	---	---	---	---	---
Hubbard, bedrock substratum	10	Bedrock (lithic)	40-80	---	---	Low	Low	Moderate

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
D40A:								
Kratka, thick solum	80	---	>80	---	---	Moderate	High	Low
Duelm	10	---	>80	---	---	Moderate	Low	Moderate
Foldahl, MAP >25	10	---	>80	---	---	Low	Moderate	Moderate
D41C:								
Urban land	75	---	---	---	---	---	---	---
Waukon	20	---	>80	---	---	Moderate	Low	Low
Braham	5	---	>80	---	---	Low	Moderate	Moderate
D43A:								
Gonvick, terrace	85	---	>80	---	---	High	Moderate	Low
Braham	15	---	>80	---	---	Low	Moderate	Moderate
GP.								
Pits, gravel- Udipsamments								
L2B:								
Malardi	65	---	>80	---	---	Moderate	Low	Low
Hawick	25	---	>80	---	---	Low	Low	Low
Rasset	5	---	>80	---	---	Moderate	Low	Low
Eden Prairie	5	---	>80	---	---	Moderate	Low	Low
L2C:								
Malardi	60	---	>80	---	---	Moderate	Low	Low
Hawick	25	---	>80	---	---	Low	Low	Low
Tomall	10	---	>80	---	---	Moderate	High	Low
Crowfork	5	---	>80	---	---	Low	Low	Moderate
L2D:								
Malardi	55	---	>80	---	---	Moderate	Low	Low
Hawick	30	---	>80	---	---	Low	Low	Low
Tomall	10	---	>80	---	---	Moderate	High	Low
Crowfork	5	---	>80	---	---	Low	Low	Moderate
L2E:								
Malardi	55	---	>80	---	---	Moderate	Low	Low
Hawick	30	---	>80	---	---	Low	Low	Low
Tomall	15	---	>80	---	---	Moderate	High	Low
L3A:								
Rasset	90	---	>80	---	---	Moderate	Low	Low
Malardi	8	---	>80	---	---	Moderate	Low	Low
Eden Prairie	2	---	>80	---	---	Moderate	Low	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
		Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
			In	In	In			
L3B:								
Rasset	80	---	>80	---	---	Moderate	Low	Low
Malardi	15	---	>80	---	---	Moderate	Low	Low
Eden Prairie	5	---	>80	---	---	Moderate	Low	Low
L3C:								
Rasset	75	---	>80	---	---	Moderate	Low	Low
Malardi	10	---	>80	---	---	Moderate	Low	Low
Tomall	10	---	>80	---	---	Moderate	High	Low
Eden Prairie	5	---	>80	---	---	Moderate	Low	Low
L4B:								
Crowfork	90	---	>80	---	---	Low	Low	Moderate
Eden Prairie	10	---	>80	---	---	Moderate	Low	Low
L4C:								
Crowfork	90	---	>80	---	---	Low	Low	Moderate
Eden Prairie	10	---	>80	---	---	Moderate	Low	Low
L4D:								
Crowfork	85	---	>80	---	---	Low	Low	Moderate
Eden Prairie	15	---	>80	---	---	Moderate	Low	Low
L6A:								
Biscay	85	---	>80	---	---	High	High	Low
Biscay, depressional	10	---	>80	---	---	High	High	Low
Mayer	5	---	>80	---	---	High	High	Low
L7A:								
Biscay, depressional	80	---	>80	---	---	High	High	Low
Biscay	15	---	>80	---	---	High	High	Low
Mayer	5	---	>80	---	---	High	High	Low
L8A:								
Darfur	95	---	>80	---	---	High	High	Low
Dassel	5	---	>80	---	---	High	High	Low
L9A:								
Minnetonka	90	---	>80	---	---	High	High	Low
Depressional soil	10	---	>80	---	---	High	High	Low
L10B:								
Kasota	80	---	>80	---	---	High	High	Low
Eden Prairie	10	---	>80	---	---	Moderate	Low	Low
Wet soil in swales	10	---	>80	---	---	High	High	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L11B:								
Grays	90	---	>80	---	---	High	Moderate	Low
Kasota	5	---	>80	---	---	High	High	Low
Crowfork	5	---	>80	---	---	Low	Low	Moderate
L12A:								
Muskego, frequently flooded	30	---	>80	---	35-45	High	Moderate	Moderate
Blue Earth, frequently flooded	30	---	>80	---	---	High	High	Low
Houghton, frequently flooded	30	---	>80	6-18	55-60	High	High	Moderate
Oshawa, frequently flooded	10	---	>80	---	---	High	High	Low
L13A:								
Klossner, drained	80	---	>80	2-4	25-32	High	High	Moderate
Mineral soil, drained	15	---	>80	---	---	High	High	Low
Houghton, drained	5	---	>80	6-18	55-60	High	High	Moderate
L14A:								
Houghton, drained	80	---	>80	6-18	55-60	High	High	Moderate
Klossner, drained	10	---	>80	2-4	25-32	High	High	Moderate
Mineral soil, drained	10	---	>80	---	---	High	High	Low
L15A:								
Klossner, ponded	30	---	>80	2-4	25-32	High	High	Moderate
Okoboji, ponded	30	---	>80	---	---	High	High	Low
Glencoe, ponded	30	---	>80	---	---	High	High	Low
Houghton, ponded	10	---	>80	6-18	55-60	High	High	Moderate
L16A:								
Muskego, ponded	30	---	>80	---	35-45	High	Moderate	Moderate
Blue Earth, ponded	30	---	>80	---	---	High	High	Low
Houghton, ponded	30	---	>80	6-18	55-60	High	High	Moderate
Klossner, ponded	10	---	>80	2-4	25-32	High	High	Moderate
L17B:								
Angus	50	---	>80	---	---	Moderate	Low	Moderate
Malardi	30	---	>80	---	---	Moderate	Low	Low
Moon	10	---	>80	---	---	Low	Moderate	Moderate
Cordova	10	---	>80	---	---	High	High	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
		Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
			In	In	In			
L18A:								
Shields	85	---	>80	---	---	High	High	Low
Lerdal	10	---	>80	---	---	High	High	High
Mazaska	5	---	>80	---	---	High	High	Moderate
L19B:								
Moon	85	---	>80	---	---	Low	Moderate	Moderate
Finchford	15	---	>80	---	---	Low	Low	Low
L20B:								
Fedji, silty substratum	85	---	>80	---	---	Low	Low	Moderate
Finchford	15	---	>80	---	---	Low	Low	Low
L21A:								
Canisteo	80	---	>80	---	---	High	High	Low
Cordova	15	---	>80	---	---	High	High	Low
Glencoe	5	---	>80	---	---	High	High	Low
L22C2:								
Lester, eroded	70	---	>80	---	---	Moderate	Low	Moderate
Angus	15	---	>80	---	---	Moderate	Low	Moderate
Terril	12	---	>80	---	---	Moderate	Moderate	Low
Hamel	3	---	>80	---	---	High	High	Low
L22D2:								
Lester, eroded	80	---	>80	---	---	Moderate	Low	Moderate
Terril	10	---	>80	---	---	Moderate	Moderate	Low
Hamel	5	---	>80	---	---	High	High	Low
Ridgeton	5	---	>80	---	---	Moderate	Moderate	Low
L22E:								
Lester, morainic	75	---	>80	---	---	Moderate	Low	Moderate
Terril	15	---	>80	---	---	Moderate	Moderate	Low
Hamel	5	---	>80	---	---	High	High	Low
Ridgeton	5	---	>80	---	---	Moderate	Moderate	Low
L22F:								
Lester, morainic	75	---	>80	---	---	Moderate	Low	Moderate
Terril	10	---	>80	---	---	Moderate	Moderate	Low
Ridgeton	10	---	>80	---	---	Moderate	Moderate	Low
Hamel	5	---	>80	---	---	High	High	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L23A:								
Cordova	85	---	>80	---	---	High	High	Low
Glencoe	10	---	>80	---	---	High	High	Low
Nessel	5	---	>80	---	---	High	Moderate	Moderate
L24A:								
Glencoe, depressional	90	---	>80	---	---	High	High	Low
Cordova	10	---	>80	---	---	High	High	Low
L25A:								
Le Sueur	80	---	>80	---	---	High	High	Low
Cordova	15	---	>80	---	---	High	High	Low
Angus	5	---	>80	---	---	Moderate	Low	Moderate
L26A:								
Shorewood	85	---	>80	---	---	High	High	Moderate
Minnetonka	10	---	>80	---	---	High	High	Low
Good Thunder	5	---	>80	---	---	High	High	Moderate
L26B:								
Shorewood	90	---	>80	---	---	High	High	Moderate
Good Thunder	5	---	>80	---	---	High	High	Moderate
Minnetonka	5	---	>80	---	---	High	High	Low
L26C2:								
Shorewood, eroded	95	---	>80	---	---	High	High	Moderate
Minnetonka	5	---	>80	---	---	High	High	Low
L27A:								
Suckercreek, frequently flooded	85	---	>80	---	---	High	High	Low
Suckercreek, occasionally flooded	10	---	>80	---	---	High	High	Low
Hanlon, occasionally flooded	5	---	>80	---	---	Moderate	Moderate	Low
L28A:								
Suckercreek, occasionally flooded	80	---	>80	---	---	High	High	Low
Suckercreek, frequently flooded	10	---	>80	---	---	High	High	Low
Hanlon, occasionally flooded	10	---	>80	---	---	Moderate	Moderate	Low
L29A:								
Hanlon, occasionally flooded	80	---	>80	---	---	Moderate	Moderate	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L29A:								
Suckercreek, occasionally flooded	10	---	>80	---	---	High	High	Low
Suckercreek, frequently flooded	10	---	>80	---	---	High	High	Low
L30A:								
Medo, surface drained	65	---	>80	8-22	16-44	High	High	Moderate
Medo, drained	20	---	>80	8-22	16-44	High	High	Moderate
Mineral soil, drained	15	---	>80	---	---	High	High	Low
L31A:								
Medo, ponded	30	---	>80	8-22	16-44	High	High	Moderate
Dassel, ponded	30	---	>80	---	---	High	High	Low
Biscay, ponded	30	---	>80	---	---	High	High	Low
Houghton, ponded	5	---	>80	6-18	55-60	High	High	Moderate
Muskego, ponded	5	---	>80	---	35-45	High	Moderate	Moderate
L32D:								
Hawick	75	---	>80	---	---	Low	Low	Low
Crowfork	15	---	>80	---	---	Low	Low	Moderate
Tomall	10	---	>80	---	---	Moderate	High	Low
L32F:								
Hawick	75	---	>80	---	---	Low	Low	Low
Crowfork	15	---	>80	---	---	Low	Low	Moderate
Tomall	10	---	>80	---	---	Moderate	High	Low
L35A:								
Lerdal	80	---	>80	---	---	High	High	High
Mazaska	10	---	>80	---	---	High	High	Moderate
Cordova	5	---	>80	---	---	High	High	Low
Le Sueur	5	---	>80	---	---	High	High	Low
L36A:								
Hamel, overwash	50	---	>80	---	---	High	High	Low
Hamel	43	---	>80	---	---	High	High	Low
Terril	5	---	>80	---	---	Moderate	Moderate	Low
Glencoe	2	---	>80	---	---	High	High	Low
L37B:								
Angus, morainic	80	---	>80	---	---	Moderate	Low	Moderate
Angus, eroded	10	---	>80	---	---	Moderate	Low	Moderate

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L37B:								
Le Sueur	5	---	>80	---	---	High	High	Low
Cordova	5	---	>80	---	---	High	High	Low
L38A:								
Rushriver, occasionally flooded	75	---	>80	---	---	High	Moderate	Low
Oshawa, frequently flooded	15	---	>80	---	---	High	High	Low
Minneiska, occasionally flooded	5	---	>80	---	---	Moderate	Moderate	Low
Algansee, occasionally flooded	5	---	>80	---	---	Moderate	Low	Low
L39A:								
Minneiska, occasionally flooded	70	---	>80	---	---	Moderate	Moderate	Low
Rushriver, occasionally flooded	15	---	>80	---	---	High	Moderate	Low
Oshawa, frequently flooded	10	---	>80	---	---	High	High	Low
Algansee, occasionally flooded	5	---	>80	---	---	Moderate	Low	Low
L40B:								
Angus	45	---	>80	---	---	Moderate	Low	Moderate
Kilkenny	40	---	>80	---	---	High	Moderate	Moderate
Lerdal	10	---	>80	---	---	High	High	High
Mazaska	5	---	>80	---	---	High	High	Moderate
L41C2:								
Lester, eroded	45	---	>80	---	---	Moderate	Low	Moderate
Kilkenny, eroded	40	---	>80	---	---	High	Moderate	Moderate
Terril	10	---	>80	---	---	Moderate	Moderate	Low
Derrynane	5	---	>80	---	---	High	High	Low
L41D2:								
Lester, eroded	45	---	>80	---	---	Moderate	Low	Moderate
Kilkenny, eroded	35	---	>80	---	---	High	Moderate	Moderate
Terril	10	---	>80	---	---	Moderate	Moderate	Low
Derrynane	5	---	>80	---	---	High	High	Low
Ridgeton	5	---	>80	---	---	Moderate	Moderate	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L41E:								
Lester	45	---	>80	---	---	Moderate	Low	Moderate
Kilkenny	40	---	>80	---	---	High	Moderate	Moderate
Terril	5	---	>80	---	---	Moderate	Moderate	Low
Derrynane	5	---	>80	---	---	High	High	Low
Ridgeton	5	---	>80	---	---	Moderate	Moderate	Low
L41F:								
Lester	45	---	>80	---	---	Moderate	Low	Moderate
Kilkenny	35	---	>80	---	---	High	Moderate	Moderate
Ridgeton	10	---	>80	---	---	Moderate	Moderate	Low
Terril	5	---	>80	---	---	Moderate	Moderate	Low
Derrynane	5	---	>80	---	---	High	High	Low
L42B:								
Kingsley	70	---	>80	---	---	Low	Low	Moderate
Gotham	25	---	>80	---	---	Low	Low	Moderate
Grays	5	---	>80	---	---	High	Moderate	Low
L42C:								
Kingsley	70	---	>80	---	---	Low	Low	Moderate
Gotham	25	---	>80	---	---	Low	Low	Moderate
Grays	5	---	>80	---	---	High	Moderate	Low
L42D:								
Kingsley	70	---	>80	---	---	Low	Low	Moderate
Gotham	25	---	>80	---	---	Low	Low	Moderate
Grays	5	---	>80	---	---	High	Moderate	Low
L42E:								
Kingsley	70	---	>80	---	---	Low	Low	Moderate
Gotham	25	---	>80	---	---	Low	Low	Moderate
Grays	5	---	>80	---	---	High	Moderate	Low
L42F:								
Kingsley	70	---	>80	---	---	Low	Low	Moderate
Gotham	25	---	>80	---	---	Low	Low	Moderate
Grays	5	---	>80	---	---	High	Moderate	Low
L43A:								
Brouillett, occasionally flooded	80	---	>80	---	---	Moderate	High	Low
Minneiska, occasionally flooded	10	---	>80	---	---	Moderate	Moderate	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L43A:								
Rushriver, occasionally flooded	10	---	>80	---	---	High	Moderate	Low
L44A:								
Nessel	85	---	>80	---	---	High	Moderate	Moderate
Cordova	10	---	>80	---	---	High	High	Low
Angus	5	---	>80	---	---	Moderate	Low	Moderate
L45A:								
Dundas	65	---	>80	---	---	High	High	Moderate
Cordova	25	---	>80	---	---	High	High	Low
Nessel	5	---	>80	---	---	High	Moderate	Moderate
Glencoe	5	---	>80	---	---	High	High	Low
L46A:								
Tomall	80	---	>80	---	---	Moderate	High	Low
Rasset	10	---	>80	---	---	Moderate	Low	Low
Malardi	10	---	>80	---	---	Moderate	Low	Low
L47A:								
Eden Prairie	85	---	>80	---	---	Moderate	Low	Low
Malardi	10	---	>80	---	---	Moderate	Low	Low
Rasset	5	---	>80	---	---	Moderate	Low	Low
L47B:								
Eden Prairie	80	---	>80	---	---	Moderate	Low	Low
Malardi	10	---	>80	---	---	Moderate	Low	Low
Rasset	10	---	>80	---	---	Moderate	Low	Low
L47C:								
Eden Prairie	70	---	>80	---	---	Moderate	Low	Low
Malardi	10	---	>80	---	---	Moderate	Low	Low
Rasset	10	---	>80	---	---	Moderate	Low	Low
Hawick	10	---	>80	---	---	Low	Low	Low
L49A:								
Klossner, surface drained	65	---	>80	2-4	25-32	High	High	Moderate
Klossner, drained	20	---	>80	2-4	25-32	High	High	Moderate
Mineral soil, drained	15	---	>80	---	---	High	High	Low
L50A:								
Houghton, surface drained	40	---	>80	6-18	55-60	High	High	Moderate

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
		Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
			In	In	In			
L50A:								
Muskego, surface drained	40	---	>80	---	35-45	High	Moderate	Moderate
Klossner, drained	10	---	>80	2-4	25-32	High	High	Moderate
Mineral soil, drained	10	---	>80	---	---	High	High	Low
L52C:								
Urban land	75	---	---	---	---	---	---	---
Lester	20	---	>80	---	---	Moderate	Low	Moderate
Kingsley	5	---	>80	---	---	Low	Low	Moderate
L52E:								
Urban land	75	---	---	---	---	---	---	---
Lester	20	---	>80	---	---	Moderate	Low	Moderate
Kingsley	5	---	>80	---	---	Low	Low	Moderate
L53B:								
Urban land	70	---	---	---	---	---	---	---
Moon	20	---	>80	---	---	Low	Moderate	Moderate
Lester	10	---	>80	---	---	Moderate	Low	Moderate
L54A:								
Urban land	70	---	---	---	---	---	---	---
Dundas	20	---	>80	---	---	High	High	Moderate
Nessel	10	---	>80	---	---	High	Moderate	Moderate
L55B:								
Urban land	70	---	---	---	---	---	---	---
Malardi	20	---	>80	---	---	Moderate	Low	Low
Rasset	5	---	>80	---	---	Moderate	Low	Low
Eden Prairie	5	---	>80	---	---	Moderate	Low	Low
L55C:								
Urban land	70	---	---	---	---	---	---	---
Malardi	20	---	>80	---	---	Moderate	Low	Low
Hawick	5	---	>80	---	---	Low	Low	Low
Crowfork	5	---	>80	---	---	Low	Low	Moderate
L56A:								
Muskego, frequently flooded	45	---	>80	---	35-45	High	Moderate	Moderate
Klossner, frequently flooded	45	---	>80	2-4	25-32	High	High	Moderate
Suckercreek, frequently flooded	10	---	>80	---	---	High	High	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L58B:								
Koronis	60	---	>80	---	---	Moderate	Low	Moderate
Kingsley	25	---	>80	---	---	Low	Low	Moderate
Forestcity	10	---	>80	---	---	High	Moderate	Low
Gotham	5	---	>80	---	---	Low	Low	Moderate
L58C2:								
Koronis, eroded	55	---	>80	---	---	Moderate	Low	Moderate
Kingsley, eroded	25	---	>80	---	---	Low	Low	Moderate
Forestcity	15	---	>80	---	---	High	Moderate	Low
Gotham	5	---	>80	---	---	Low	Low	Moderate
L58D2:								
Koronis, eroded	55	---	>80	---	---	Moderate	Low	Moderate
Kingsley, eroded	25	---	>80	---	---	Low	Low	Moderate
Forestcity	15	---	>80	---	---	High	Moderate	Low
Gotham	5	---	>80	---	---	Low	Low	Moderate
L58E:								
Koronis	55	---	>80	---	---	Moderate	Low	Moderate
Kingsley	25	---	>80	---	---	Low	Low	Moderate
Forestcity	15	---	>80	---	---	High	Moderate	Low
Gotham	5	---	>80	---	---	Low	Low	Moderate
L59A:								
Forestcity	70	---	>80	---	---	High	Moderate	Low
Lundlake, depressional	25	---	>80	---	---	High	High	Low
Marcellon	5	---	>80	---	---	High	High	Moderate
L60B:								
Angus	65	---	>80	---	---	Moderate	Low	Moderate
Moon	30	---	>80	---	---	Low	Moderate	Moderate
Hamel	5	---	>80	---	---	High	High	Low
L61C2:								
Lester, eroded	60	---	>80	---	---	Moderate	Low	Moderate
Metea, eroded	25	---	>80	---	---	Low	Moderate	Moderate
Terril	12	---	>80	---	---	Moderate	Moderate	Low
Hamel	3	---	>80	---	---	High	High	Low
L61D2:								
Lester, eroded	55	---	>80	---	---	Moderate	Low	Moderate
Metea, eroded	25	---	>80	---	---	Low	Moderate	Moderate

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L61D2:								
Terril	12	---	>80	---	---	Moderate	Moderate	Low
Ridgeton	5	---	>80	---	---	Moderate	Moderate	Low
Hamel	3	---	>80	---	---	High	High	Low
L61E:								
Lester	55	---	>80	---	---	Moderate	Low	Moderate
Metea	25	---	>80	---	---	Low	Moderate	Moderate
Terril	10	---	>80	---	---	Moderate	Moderate	Low
Hamel	5	---	>80	---	---	High	High	Low
Ridgeton	5	---	>80	---	---	Moderate	Moderate	Low
L62B:								
Koronis	55	---	>80	---	---	Moderate	Low	Moderate
Kingsley	20	---	>80	---	---	Low	Low	Moderate
Malardi	20	---	>80	---	---	Moderate	Low	Low
Forestcity	5	---	>80	---	---	High	Moderate	Low
L62C2:								
Koronis, eroded	40	---	>80	---	---	Moderate	Low	Moderate
Kingsley, eroded	25	---	>80	---	---	Low	Low	Moderate
Malardi, eroded	25	---	>80	---	---	Moderate	Low	Low
Forestcity	10	---	>80	---	---	High	Moderate	Low
L62D2:								
Koronis, eroded	40	---	>80	---	---	Moderate	Low	Moderate
Kingsley, eroded	25	---	>80	---	---	Low	Low	Moderate
Malardi, eroded	25	---	>80	---	---	Moderate	Low	Low
Forestcity	10	---	>80	---	---	High	Moderate	Low
L62E:								
Koronis	40	---	>80	---	---	Moderate	Low	Moderate
Kingsley	25	---	>80	---	---	Low	Low	Moderate
Malardi	25	---	>80	---	---	Moderate	Low	Low
Forestcity	10	---	>80	---	---	High	Moderate	Low
L64A:								
Tadkee	50	---	>80	---	---	High	High	Low
Tadkee, depressional	36	---	>80	---	---	High	High	Moderate
Better drained soil	8	---	>80	---	---	Moderate	Low	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L64A:								
Granby	4	---	>80	---	---	High	High	Low
Less sandy soil	2	---	>80	---	---	High	High	Low
L70C2:								
Lester, eroded	60	---	>80	---	---	Moderate	Low	Moderate
Malardi, eroded	25	---	>80	---	---	Moderate	Low	Low
Terril	12	---	>80	---	---	Moderate	Moderate	Low
Hamel	3	---	>80	---	---	High	High	Low
L70D2:								
Lester, eroded	55	---	>80	---	---	Moderate	Low	Moderate
Malardi, eroded	25	---	>80	---	---	Moderate	Low	Low
Terril	12	---	>80	---	---	Moderate	Moderate	Low
Ridgeton	5	---	>80	---	---	Moderate	Moderate	Low
Hamel	3	---	>80	---	---	High	High	Low
L70E:								
Lester	55	---	>80	---	---	Moderate	Low	Moderate
Malardi	25	---	>80	---	---	Moderate	Low	Low
Terril	10	---	>80	---	---	Moderate	Moderate	Low
Hamel	5	---	>80	---	---	High	High	Low
Ridgeton	5	---	>80	---	---	Moderate	Moderate	Low
L71C:								
Metea	80	---	>80	---	---	Low	Moderate	Moderate
Lester	15	---	>80	---	---	Moderate	Low	Moderate
Moon	5	---	>80	---	---	Low	Moderate	Moderate
L72A:								
Lundlake, depressional	90	---	>80	---	---	High	High	Low
Forestcity	10	---	>80	---	---	High	Moderate	Low
L110E:								
Lester	50	---	>80	---	---	Moderate	Low	Moderate
Ridgeton	30	---	>80	---	---	Moderate	Moderate	Low
Cokato	10	---	>80	---	---	Moderate	Low	Low
Belview	6	---	>80	---	---	Moderate	Low	Low
Hamel	2	---	>80	---	---	High	High	Low
Terril	2	---	>80	---	---	Moderate	Moderate	Low

Table 23.--Soil Features--Continued

Map symbol and component name	Pct. of map unit	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
			In	In	In			
L110F:								
Lester	55	---	>80	---	---	Moderate	Low	Moderate
Ridgeton	30	---	>80	---	---	Moderate	Moderate	Low
Cokato	8	---	>80	---	---	Moderate	Low	Low
Belview	4	---	>80	---	---	Moderate	Low	Low
Terril	2	---	>80	---	---	Moderate	Moderate	Low
Hamel	1	---	>80	---	---	High	High	Low
L131A:								
Litchfield	85	---	>80	---	---	Moderate	Low	Low
Darfur	10	---	>80	---	---	High	High	Low
Crowfork	5	---	>80	---	---	Low	Low	Moderate
L132A:								
Hamel	50	---	>80	---	---	High	High	Low
Glencoe, depressional	30	---	>80	---	---	High	High	Low
Hamel, overwash	15	---	>80	---	---	High	High	Low
Terril	5	---	>80	---	---	Moderate	Moderate	Low
M-W.								
Water, miscellaneous								
U1A.								
Urban land-Udorthents, wet substratum								
U2A.								
Udorthents, wet substratum								
U3B.								
Udorthents (cut and fill land)								
U4A.								
Urban land-Udipsamments (cut and fill land)								
U5A.								
Urban land-Udorthents, wet substratum								
U6B.								
Urban land-Udorthents (cut and fill land)								
W.								
Water								

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Glossary

Ablation till. Loose, permeable till deposited during the final downwasting of glacial ice. Lenses of crudely sorted sand and gravel are common.

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Alpha,alpha-dipyridyl. A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction in which a slope faces.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

Basal till. Compact glacial till deposited beneath the ice.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

Base slope. A geomorphic component of hills consisting of the concave to linear (perpendicular to the contour) slope that, regardless of the lateral shape, forms an apron or wedge at the bottom of a hillside dominated by colluvium and slope-wash sediments (for example, slope alluvium).

Beach deposits. Material, such as sand and gravel, that is generally laid down parallel to an active or relict shoreline of a postglacial or glacial lake.

Bedding planes. Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bench terrace. A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Blowout. A shallow depression from which all or most of the soil material has been removed by the wind. A blowout has a flat or irregular floor formed by a resistant layer or by an accumulation of pebbles or cobbles. In some blowouts the water table is exposed.

Bog. Waterlogged, spongy ground, consisting primarily of mosses, containing acidic, decaying

vegetation (such as sphagnum, sedges, and heaths) that develops into peat.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Brush management. Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

Calcareous soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

Canopy. The leafy crown of trees or shrubs. (See Crown.)

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Catena. A sequence, or "chain," of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Catsteps. Very small, irregular terraces on steep hillsides, especially in pasture, formed by the trampling of cattle or the slippage of saturated soil.

Channery soil material. Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.

Chemical treatment. Control of unwanted vegetation through the use of chemicals.

Chiseling. Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay depletions. Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.

COLE (coefficient of linear extensibility). See Linear extensibility.

Colluvium. Soil material or rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Concretions. Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.

Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation

cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

Conservation tillage. A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.

Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Coprogenous earth (sedimentary peat). Fecal material deposited in water by aquatic organisms.

Corrosion. Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

Cropping system. Growing crops according to a planned system of rotation and management practices.

Cross-slope farming. Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.

Crown. The upper part of a tree or shrub, including the living branches and their foliage.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Decreasers. The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Delta. A body of alluvium having a surface that is nearly flat and fan shaped; deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, generally a sea or lake.

Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

Depression. Any relatively sunken part of the earth's surface; especially a low-lying area surrounded by higher ground. A closed depression has no natural outlet for surface drainage.

Depth, soil. Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.

Disintegration moraine. A drift topography characterized by chaotic mounds and pits, generally randomly oriented, developed in supraglacial drift by collapse and flow as the underlying stagnant ice melted. Slopes may be steep and unstable. Abrupt changes between materials of differing lithology are common.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained,* and *very poorly drained*. These classes are defined in the "Soil Survey Manual."

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. A relatively small, linear depression that, at some time, moves concentrated water and

either does not have a defined channel or has only a small defined channel.

Drumlin. A low, smooth, elongated oval hill, mound, or ridge of compact glacial till. The longer axis is parallel to the path of the glacier and commonly has a blunt nose pointing in the direction from which the ice approached.

Duff. A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

End moraine. A ridgelike accumulation that is being or was produced at the outer margin of an actively flowing glacier at any given time.

Endosaturation. A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.

Eolian soil material. Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.

Ephemeral stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

Episaturation. A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Erosion pavement. A layer of gravel or stones that remains on the surface after fine particles are removed by sheet or rill erosion.

Escarpment. A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Synonym: scarp.

Esker. A narrow, winding ridge of stratified gravelly and sandy drift deposited by a stream flowing in a tunnel beneath a glacier.

Fan terrace. A relict alluvial fan, no longer a site of active deposition, incised by younger and lower alluvial surfaces.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity, normal moisture capacity,* or *capillary capacity*.

Fine textured soil. Sandy clay, silty clay, or clay.

Firebreak. An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of firefighters and equipment. Designated roads also serve as firebreaks.

First bottom. The normal flood plain of a stream, subject to frequent or occasional flooding.

Flaggy soil material. Material that has, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.

Flagstone. A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.

Flood plain. A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

Footslope. The position that forms the inner, gently inclined surface at the base of a hillslope. In profile, footslopes are commonly concave. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Frost action (in tables). Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Geomorphology. The science that treats the general configuration of the earth's surface; specifically, the study of the classification, description, nature, origin, and development of landforms and their relationships to underlying structures, and the history of geologic changes as recorded by these surface features. The term is especially applied to the genetic interpretation of landforms.

Glacial drift. Pulverized and other rock material transported by glacial ice and then deposited. Also, the sorted and unsorted material deposited by streams flowing from glaciers.

Glacial outwash. Gravel, sand, and silt, commonly stratified, deposited by glacial meltwater.

Glacial till. Unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice.

Glaciofluvial deposits. Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and occur as kames, eskers, deltas, and outwash plains.

Glaciolacustrine deposits. Material ranging from fine clay to sand derived from glaciers and deposited in glacial lakes mainly by glacial meltwater. Many deposits are interbedded or laminated.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Graded stripcropping. Growing crops in strips that grade toward a protected waterway.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water. Water filling all the unblocked pores of the material below the water table.

Gully. A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Head slope. A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

Herbaceous peat. An accumulation of organic material, decomposed to some degree, that is predominantly the remains of sedges, reeds, cattails, and other herbaceous plants.

High-chroma zones. Zones having chroma of 3 or more. Typical color in areas of iron concentrations.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A natural elevation of the land surface, rising as

much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Ice-walled lake plain. A relict surface marking the floor of an extinct lake basin that was formed on solid ground and surrounded by stagnant ice in a stable or unstable superglacial environment on stagnation moraines. As the ice melted, the lake plain became perched above the adjacent landscape. The lake plain is well sorted, generally fine textured, stratified deposits.

Igneous rock. Rock formed by solidification from a molten or partially molten state. Major varieties include plutonic and volcanic rock. Examples are andesite, basalt, and granite.

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Increasers. Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net

irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Interfluve. An elevated area between two drainageways that sheds water to those drainageways.

Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

Iron concentrations. High-chroma zones having a high content of iron and manganese oxide because of chemical oxidation and accumulation, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic concentration.

Iron depletions. Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

Kame. An irregular, short ridge or hill of stratified glacial drift.

Kame moraine. An end moraine that contains numerous kames. A group of kames along the front of a stagnant glacier, commonly comprising the slumped remnants of a formerly continuous outwash plain built up over the foot of rapidly wasting or stagnant ice.

Karst (topography). The relief of an area underlain by limestone that dissolves in differing degrees, thus forming numerous depressions or small basins.

Knoll. A small, low, rounded hill rising above adjacent landforms.

K_{sat}. Saturated hydraulic conductivity. (See Permeability.)

Lacustrine deposit. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

Lake bed. The bottom of a lake; a lake basin.

Lake plain. A nearly level surface marking the floor of an extinct lake filled by well sorted, generally fine textured, stratified deposits, commonly containing varves.

Lake terrace. A narrow shelf, partly cut and partly built, produced along a lakeshore in front of a scarp line of low cliffs and later exposed when the water level falls.

Lakeshore. A narrow strip of land in contact with or bordering a lake; especially the beach of a lake.

Lamella. A thin (commonly less than 1 cm thick), discontinuous or continuous, generally horizontal layer of fine material (especially clay and iron oxides) that has been pedogenically concentrated (illuviated within a coarser textured eluviated layer several centimeters to several decimeters thick).

Landslide. The rapid downhill movement of a mass of soil and loose rock, generally when wet or saturated. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at $^1/_3$- or $^1/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loess. Fine grained material, dominantly of silt-sized particles, deposited by wind.

Low strength. The soil is not strong enough to support loads.

Low-chroma zones. Zones having chroma of 2 or less. Typical color in areas of iron depletions.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Marl. An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal amounts.

Masses. Concentrations of substances in the soil matrix that do not have a clearly defined boundary with the surrounding soil material and cannot be removed as a discrete unit. Common compounds making up masses are calcium carbonate, gypsum or other soluble salts, iron oxide, and manganese oxide. Masses consisting of iron oxide or manganese oxide generally are considered a type of redoximorphic concentration.

Mechanical treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. An area that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

Moraine. An accumulation of earth, stones, and other debris deposited by a glacier. Some types are terminal, lateral, medial, and ground.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few, common,* and *many;* size—*fine, medium,* and *coarse;* and contrast—*faint, distinct,* and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium,* from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse,* more than 15 millimeters (about 0.6 inch).

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Mucky peat. Unconsolidated soil material consisting primarily of organic matter that is in an intermediate stage of decomposition such that a significant part of the material can be recognized and a significant part of the material cannot be recognized.

Mudstone. Sedimentary rock formed by induration of silt and clay in approximately equal amounts.

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)

Nodules. Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds

making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.

Nose slope. A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent.

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Outwash plain. A landform of mainly sandy or coarse textured material of glaciofluvial origin. An outwash plain is commonly smooth; where pitted, it generally is low in relief.

Paleoterrace. An erosional remnant of a terrace that retains the surface form and alluvial deposits of its origin but was not emplaced by, and commonly does not grade to, a present-day stream or drainage network.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedisediment. A thin layer of alluvial material that mantles an erosion surface and has been transported to its present position from higher lying areas of the erosion surface.

Pedon. The smallest volume that can be called “a soil.” A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as “saturated hydraulic conductivity,” which is defined in the “Soil Survey Manual.” In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as “permeability.” Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0015 inch
Very slow	0.0015 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitted outwash plain. An outwash plain marked by many irregular depressions, such as kettles, shallow pits, and potholes, which formed by melting of incorporated ice masses; common in Wisconsin and Minnesota.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plateau. An extensive upland mass with relatively flat summit area that is considerably elevated (more than 100 meters) above adjacent lowlands and separated from them on one or more sides by escarpments.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly

the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Redoximorphic concentrations. Nodules, concretions, soft masses, pore linings, and other features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.

Redoximorphic depletions. Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been removed. These zones are indications of the chemical reduction of iron resulting from saturation.

Redoximorphic features. Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha,alpha-dipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.

Reduced matrix. A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.

Regolith. The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.

Relief. The elevations or inequalities of a land surface, considered collectively.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.

Rill. A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.

Rise. A slight increase in elevation of the land surface, typically with a broad summit and gently sloping sides.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Root zone. The part of the soil that can be penetrated by plant roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Saline soil. A soil containing soluble salts in an amount that impairs growth of plants. A saline soil does not contain excess exchangeable sodium.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a

soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saprolite. Unconsolidated residual material underlying the soil and grading to hard bedrock below.

Saturated hydraulic conductivity (K_{sat}). See Permeability.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Scarification. The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.

Second bottom. The first terrace above the normal flood plain (or first bottom) of a river.

Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.

Seepage (in tables). The movement of water through the soil adversely affects the specified use.

Sequum. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock formed by the hardening of a clay deposit.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Shoulder. The position that forms the uppermost inclined surface near the top of a hillslope. It is a transition from backslope to summit. The surface is dominantly convex in profile and erosional in origin.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Side slope. A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel.

Silica. A combination of silicon and oxygen. The mineral form is called quartz.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. Sedimentary rock made up of dominantly silt-sized particles.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Sinkhole. A depression in the landscape where limestone has been dissolved.

Slickensides. Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.

Sloughed till. Water-saturated till that has flowed slowly downhill from its original place of deposit by glacial ice. It may rest on other till, on glacial outwash, or on a glaciolacustrine deposit.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Sodium adsorption ratio (SAR). A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of

climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Stagnation moraine. A body of drift released by the melting of a glacier that ceased flowing. Commonly, but not always, occurs near ice margins; composed of till, ice-contact stratified drift, and small areas of glacial lake sediment. Typical landforms are knob-and-kettle topography, locally including ice-walled lake plains.

Stone line. A concentration of rock fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediment of variable thickness.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsidence. The potential decrease in surface elevation as a result of the drainage of wet soils that have organic layers or semifluid mineral layers. Subsidence, as a result of drainage, is attributed to (1) shrinkage from drying, (2) consolidation because of the loss of ground-water buoyancy, (3) compaction from tillage or manipulation, (4) wind erosion, (5) burning, and (6) biochemical oxidation.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter or loosen a layer that restricts roots.

Substratum. The part of the soil below the solum.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Summit. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the “plow layer,” or the “Ap horizon.”

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Swale. A slight depression in the midst of generally level land. A shallow depression in an undulating ground moraine caused by uneven glacial deposition.

Terminal moraine. A belt of thick glacial drift that generally marks the termination of important glacial advances.

Terrace. An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

Thin layer (in tables). Otherwise suitable soil material that is too thin for the specified use.

Till plain. An extensive area of nearly level to undulating soils underlain by glacial till.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. The position that forms the gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Trace elements. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.

Upland. Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Valley fill. In glaciated regions, material deposited in stream valleys by glacial meltwater. In nonglaciated regions, alluvium deposited by heavily loaded streams.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wilting point (or permanent wilting point). The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Windthrow. The uprooting and tipping over of trees by the wind.

Woody peat. An accumulation of organic material that is predominantly composed of trees, shrubs, and other woody plants.