United States Department of Agriculture

Natural Resources Conservation Service

In cooperation with the Research Division of the College of Agricultural and Life Sciences, University of Wisconsin

Soil Survey of Burnett County, Wisconsin

Subset of Major Land Resource Areas 90 and 91

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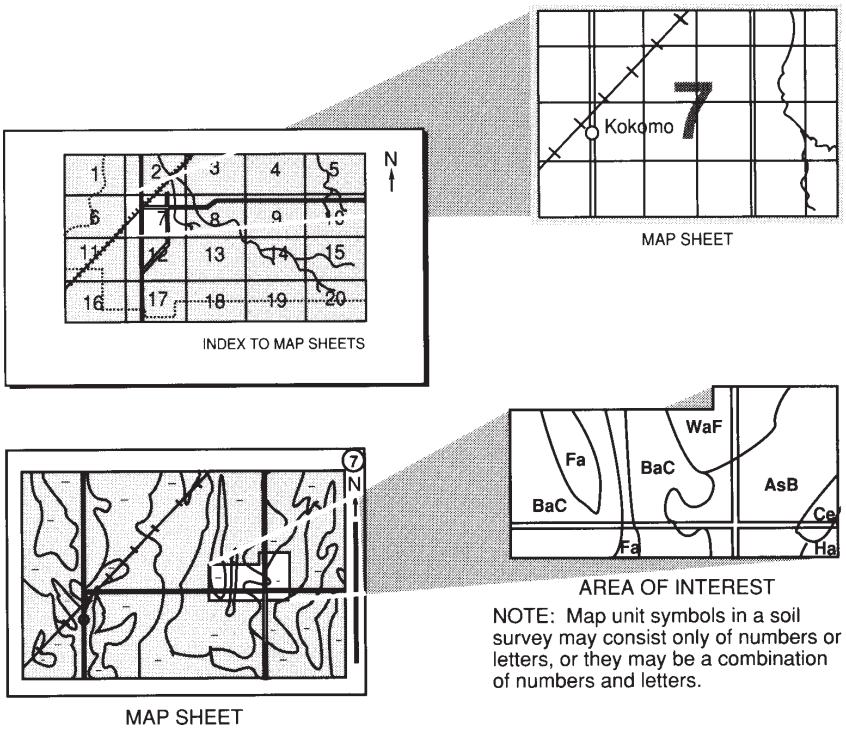
How To Use This Soil Survey

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 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 detailed soil map unit. Also see the **Contents** for 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.

National Cooperative Soil Survey

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. This survey was made cooperatively by the Natural Resources Conservation Service and the Research Division of the College of Agricultural and Life Sciences, University of Wisconsin. The survey is part of the technical assistance furnished to the Burnett County Land Conservation Department. The State of Wisconsin contributed funding towards the completion of this survey through the State Soil Survey Initiative. The Wisconsin Department of Natural Resources provided technical assistance.

Major fieldwork for this soil survey was completed in 2002. Soil names and descriptions were approved in 2003. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2003. Digitizing of this soil survey was completed under the direction of the Madison, Wisconsin, digitizing unit in 2004. The most current official data are available on the Internet.

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 Caption

An area of Newson-Meehan complex, 0 to 3 percent slopes, in the Crex Meadows Wildlife Area. These soils are suited to wetland wildlife habitat. The use of the area by migratory waterfowl has been enhanced by the creation of additional wetlands.

Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at http://www.nrcs.usda.gov.

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Foreword

Soil surveys contain information that affects land use planning in survey areas. They include predictions of soil behavior for selected land uses. The surveys highlight soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

Soil surveys are designed for many different users. Farmers, foresters, and agronomists can use the surveys 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 surveys 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 surveys 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 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 detailed 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.

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Soil Survey of
Burnett County, Wisconsin,
Subset of Major Land Resource Areas 90 and 91

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How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area, which is in Major Land Resource Areas 90 and 91. The majority of MLRA 90 occurs in Wisconsin, and the majority of MLRA 91 occurs in Minnesota. Major land resource areas (MLRAs) are geographically associated land resource units that share a common land use, elevation, topography, climate, water, soils, and vegetation (USDA, 1981). Burnett County, which is in northwestern Wisconsin (fig. 1), is a subset of MLRA 90, Central Wisconsin and Minnesota Thin Loess and Till, and MLRA 91, Wisconsin and Minnesota Sandy Outwash. Map unit design and the soil descriptions are based on documentation of the occurrence of each soil throughout the MLRAs.

The information in this survey includes a brief description of the soils and miscellaneous areas and interpretive tables showing soil properties and the subsequent effects on suitability, limitations, and management for specified uses.

During the fieldwork for this survey, 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

Figure 1.—Location of Burnett County in Wisconsin.

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.

Formation and Classification of the Soils

Soil is produced by the action of soil-forming processes on materials deposited or accumulated by geologic forces. The characteristics and properties of 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; (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 (Jenny, 1941). The relative effect of each of these factors is reflected in the soil profile.

The interaction of these factors during the transformation of the parent material into soil generates complex physical, chemical, and biological processes that cause minerals to become weathered and organic matter to accumulate. Material in suspension or in solution moves downward through the soil to form definite layers, or horizons, in the soil. These layers—surface layer, subsurface layer, subsoil, and substratum—are defined in the Glossary.

All of the major factors of soil formation are interrelated. When one factor changes, the other four factors are affected. The following paragraphs describe the factors of soil formation as they relate to the soils in the survey area.

Parent Material

Parent material largely determines the physical and chemical properties of the soil, such as the capacity or ability of the soil to store water and nutrients for plants and the rate at which water can pass through the soil.

The soils in Burnett County formed in a wide variety of parent materials, including till, outwash, glaciolacustrine deposits, and alluvial deposits.

Till is unsorted, unstratified drift consisting mainly of clay, silt, and sand. It may contain gravel, cobbles, stones, or boulders. The till in the southern part of the county is dominantly sandy loam. Freeon and Magnor soils are examples of soils that formed in silty deposits and in the underlying loamy till. The loamy till is dense at a depth of 40 to 60 inches. This dense layer restricts the movement of water through the soil. Branstad and Alstad soils are examples of soils that formed in loamy calcareous till. These soils occur south of Grantsburg.

Fremstadt and Spoonerhill soils are examples of till soils that are dominantly sandy throughout. They have a thin loamy upper layer but have friable sandy till in the subsoil and substratum. These soils are in the east-central part of the county on moraines surrounded by sandy outwash soils.

Outwash is sand, sand and gravel, or stratified sand and gravel deposited by water flowing from a melting glacier. Rosholt, Scott Lake, and Oesterle soils formed mostly in loamy deposits over sandy and gravelly outwash. Antigo and Sconsin soils formed mostly in silty deposits over sandy and gravelly outwash. These soils are mostly in the southeastern part of the county.

Graycalm, Grettum, Mahtomedi, and Menahga soils are examples of outwash soils that are sandy or gravelly throughout. These soils are in the central and northwestern parts of the county.

Glaciolacustrine deposits are materials ranging from fine clay to sand derived from glaciers and deposited in glacial lakes, mainly by glacial meltwater. Many deposits are interbedded or laminated. In Burnett County, ice-walled lake plains formed as surrounding stagnant ice melted. These dish-shaped plateau formations are easy to recognize on topographic maps (Johnson, 2000). Barronett, Comstock, and Crystal Lake soils are examples of soils that formed in areas where these deposits are dominantly loamy. Sissabagama soils are examples of soils that formed in areas where loamy glaciolacustrine deposits are covered by deep deposits of sandy outwash.

Other glaciolacustrine deposits in Burnett County were laid down in areas once covered by Glacial Lake Grantsburg. Glacial Lake Grantsburg formed as the Grantsburg Sublobe of the Des Moines glacial advance dammed the southwest-flowing St. Croix River in the vicinity of Grantsburg. It is estimated that Glacial Lake Grantsburg lasted for about 80 to 100 years (Johnson, 2000). Dody, Karlsborg, and Perida soils are examples of soils that formed in areas where a thin layer of clayey Glacial Lake Grantsburg glaciolacustrine deposits were covered by moderately deep or deep sandy outwash or glaciolacustrine deposits. These soils are in the east-central part of the county. Alango, Indus, and Taylor soils are examples of soils that have thick clayey deposits. These soils are in the southwestern part of the county, east of Grantsburg.

Some of the soils in the county, such as Totagatic and Winterfield soils, formed in sandy postglacial alluvial deposits that were laid down as rivers overflowed and deposited fresh sediments on the flood plains. Fordum soils are examples of soils that formed in loamy alluvial deposits.

Climate

Climate influences soil formation by providing the moisture and temperatures necessary for the weathering of parent material. It also alters the parent material through the mechanical action of freezing and thawing.

Water dissolves and transfers soluble materials and nutrients to the lower parts of the soil. Reaction, or pH, is largely influenced by this process. Temperature affects the rate at which chemical reactions and biological processes proceed. These reactions and processes are slower at a lower temperature than at a higher temperature. Moisture and temperature also affect the kinds of plants and animals that grow on and in the soil. The accumulation and decomposition of organic material also are influenced by moisture and temperature.

Wind can affect the development of soil by adding or removing fine particles of soil or organic material. It also affects the moisture content of soils by influencing the rate of evaporation. Shawano soils in the southwestern part of the county are examples of soils in which the upper layers have been reworked by the wind.

Climate can also have more localized effects. For example, north- and east-facing slopes tend to be cooler and wetter than south- and west-facing slopes. Depressional areas generally have cooler temperatures for a longer part of the year than summits and slopes of hills.

Burnett County has a cool, subhumid continental climate that favors the growth of trees and the formation of leached, acid soils with a thin, dark surface layer and a clay-enriched subsoil.

Living Organisms

Living organisms, such as plants, bacteria, fungi, insects, earthworms, nematodes, and rodents, influence the formation of soils. In addition to providing organic matter to the soil, their activities result in the development of soil structure and the formation of

voids in the soil and thus encourage the transferral of clay and nutrients from the upper layers to the subsoil.

Plants generally have more influence than other living organisms on soil formation. Plant roots excrete substances that act on the parent material to bring nutrients or mineral substances into solution. These nutrients are translocated by plant roots upward to stems and leaves. When the plants die, minerals and nutrients are released to the upper soil layers. The organic acids formed from the decaying plant residue accelerate soil formation by reacting with rock and mineral constituents. Plants also affect soil formation by modifying the effects of climate—for example, by removing soil moisture through evapotransportation and by reducing the hazard of erosion.

Soil organisms decompose organic compounds and sequester nitrogen and other nutrients and make them available to plants. Organisms in the soil also enhance soil structure and porosity as they move through the soil. Roots and percolating water follow the channels created by animal activity.

Relief

Relief is an important factor in soil formation because it affects drainage, aeration, and erosion.

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 in well drained, gently sloping areas. Profile development is slower on steep slopes, where runoff is rapid and the rate of water infiltration is slower. Excessive runoff reduces the amount of water that is available for leaching the soil and for use by plants, and it can increase the hazard of erosion. Differences in relief can account for the formation of different soils in similar kinds of parent material. For example, some soils in the county formed in similar kinds of parent material but have different drainage classes because they are in different positions on the landscape.

Oesterle and other somewhat poorly drained soils have redoximorphic features in the subsoil because of seasonal wetness. These soils commonly are less sloping and have a slower rate of surface runoff than the well drained soils. They are also lower on the landscape and typically receive runoff from the adjacent uplands.

Minocqua and other poorly drained and very poorly drained soils are in the lowest positions on the landscape, where runoff is very slow or ponded. They have a grayish subsoil as a result of prolonged saturation and poor aeration. The surface layer generally is darker and thicker than that of upland soils because the moisture content is more favorable for the accumulation of organic material.

In areas where accumulations of decomposing plant residue are thicker because of excessive wetness, organic soils have formed. Beseman, Cathro, and Markey soils are examples of soils that formed in organic material 16 to 51 inches thick over mineral deposits. Greenwood and Seelyeville soils are examples of soils that formed in organic material more than 51 inches thick.

Time

Time is required for the formation of soil. In most cases, the longer the other factors of soil formation have been allowed to act on the parent material, the more profile development can occur. Soils that are forming in parent material that has been deposited relatively recently, such as Fordum, Totagatic, and Winterfield soils, show very little profile development.

In upland areas that support woodland vegetation, the soils that have developed are characterized by organic matter that was produced by the decay of leaves, limbs, and trunks. This decay produced acids that percolated through the surface litter and into the soil and increased the mobility of clay, organic material, and oxides, which allowed

these substances to be leached away or to accumulate in the subsoil. Over a period of time, clay, organic matter, and oxides were removed from the surface layer and a thin bleached subsurface layer formed just below it. The clay, organic matter, and oxides accumulated in the subsoil horizons below this subsurface layer in the form of thin films on individual soil particles, on peds, and along cracks and pores. Freeon soils are examples of soils that formed in an area of woodland vegetation.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2003). 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 Alfisol.

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 Aqualf (*Aqu*, meaning water, plus *alf*, from Alfisol).

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; type of saturation; 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 Epiaqualfs (*Epi*, meaning on or above, plus *aqualf*, the suborder of the Alfisols that has an aquic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup 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 taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. An example is Mollic Epiaqualfs.

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-silty, mixed, superactive, frigid Mollic Epiaqualfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. An example is the Barronett series.

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

Table 1.--Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series)

Soil name	Family or higher taxonomic class
Aftad	Coarse-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Alango	Very-fine, smectitic, frigid Vertic Epiaqualfs
Alstad	Fine-loamy, mixed, superactive, frigid Aquic Glossudalfs
Amery	Coarse-loamy, mixed, superactive, frigid Haplic Glossudalfs
Antigo	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, frigid Haplic Glossudalfs
Ausable	Sandy, mixed, frigid Histic Humaquepts
Barronett	Fine-silty, mixed, superactive, frigid Mollic Epiaqualfs
Beartree	Loamy-skeletal, mixed, superactive, frigid Lithic Endoaquolls
Beseman	Loamy, mixed, dysic, frigid Terric Haplosaprists
Bigisland	Sandy-skeletal, isotic, frigid Typic Hapludalfs
Bjorkland	Sandy over clayey, mixed over smectitic, frigid Typic Epiaqualfs
Bluffton	Fine-loamy, mixed, superactive, frigid Typic Endoaquolls
Bowstring	Euic, frigid Fluvaquentic Haplosaprists
Braham	Loamy, mixed, superactive, frigid Arenic Hapludalfs
Branstad	Fine-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Bushville	Loamy, mixed, superactive, frigid Aquic Arenic Hapludalfs
Capitola	Coarse-loamy, mixed, superactive, frigid Mollic Epiaqualfs
Cathro	Loamy, mixed, euic, frigid Terric Haplosaprists
Chelmo	Clayey over sandy or sandy-skeletal, smectitic over mixed, frigid Umbric Epiaqualfs
Clemens	Loamy-skeletal, mixed, superactive, frigid Aquic Dystric Eutrudepts
Comstock	Fine-silty, mixed, superactive, frigid Aquic Glossudalfs
Cress	Sandy, mixed, frigid Humic Dystrudepts
Crex	Mixed, frigid Oxyaquic Udipsamments
Crystal Lake	Fine-silty, mixed, superactive, frigid Oxyaquic Glossudalfs
Cushing	Fine-loamy, mixed, superactive, frigid Haplic Glossudalfs
Cutaway	Fine-loamy, mixed, superactive, frigid Oxyaquic Hapludalfs
Dairyland	Sandy-skeletal, mixed, frigid Oxyaquic Hapludalfs
Daisybay	Clayey, mixed, euic, frigid Terric Haplohemists
Dawson	Sandy or sandy-skeletal, mixed, dysic, frigid Terric Haplosaprists
Dody	Clayey, smectitic, frigid Arenic Albaqualfs
Dora	Clayey, smectitic, euic, frigid Terric Haplosaprists
Drylanding	Loamy-skeletal, mixed, superactive, frigid Lithic Hapludolls
Elderon	Sandy-skeletal, mixed, frigid Typic Dystrudepts
Emmert	Sandy-skeletal, mixed, frigid Typic Udorthents
Fenander	Coarse-loamy, mixed, superactive, frigid Udollic Epiaqualfs
Fordum	Coarse-loamy, mixed, superactive, nonacid, frigid Mollic Fluvaquents
Freeon	Coarse-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Fremstadt	Sandy, mixed, frigid Arenic Hapludalfs
Freya	Sandy over clayey, mixed over smectitic, frigid Aquic Argiudolls
Friendship	Mixed, frigid Typic Udipsamments
Giese	Coarse-loamy, mixed, superactive, nonacid, frigid Mollic Epiaquepts
Glendenning	Coarse-loamy, mixed, superactive, frigid Aquic Glossudalfs
Graycalm	Mixed, frigid Lamellic Udipsamments
Grayling	Mixed, frigid Typic Udipsamments
Greenwood	Dysic, frigid Typic Haplohemists
Grettum	Mixed, frigid Lamellic Udipsamments
Haugen	Coarse-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Haustrup	Loamy, isotic, frigid Humic Lithic Dystrudepts
Indus	Very-fine, smectitic, frigid Vertic Epiaqualfs
Karlsborg	Very-fine, smectitic, frigid Oxyaquic Hapludalfs
Keweenaw	Sandy, mixed, frigid Alfic Haplorthods
Kost	Sandy, mixed, frigid Entic Hapludolls
Lara	Sandy over clayey, mixed, superactive, frigid Oxyaquic Argiudolls
Lenroot	Mixed, frigid Oxyaquic Udipsamments
Lino	Mixed, frigid Aquic Udipsamments
Loxley	Dysic, frigid Typic Haplosaprists
Lundeen	Coarse-silty, isotic, frigid Humic Dystrudepts
Lupton	Euic, frigid Typic Haplosaprists
Magnor	Coarse-loamy, mixed, superactive, frigid Aquic Glossudalfs
Mahtomedi	Mixed, frigid Typic Udipsamments
Makwa	Loamy-skeletal, isotic, nonacid, frigid Histic Humaquepts

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

Soil name	Family or higher taxonomic class
Markey	Sandy or sandy-skeletal, mixed, euic, frigid Terric Haplosaprists
Meehan	Mixed, frigid Aquic Udipsamments
Meenon	Clayey, smectitic, frigid Aquic Arenic Hapludalfs
Menahga	Mixed, frigid Typic Udipsamments
Milaca	Coarse-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Minocqua	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, nonacid, frigid Typic Endoaquepts
Moppet	Coarse-loamy, mixed, superactive, frigid Oxyaquic Dystrudepts
Mora	Coarse-loamy, mixed, superactive, frigid Aquic Glossudalfs
Newson	Mixed, frigid Humaqueptic Psammaquents
*Nokasippi	Fine-loamy, mixed, superactive, frigid Udollic Epiaqualfs
Oesterle	Coarse-loamy, mixed, superactive, frigid Aquic Glossudalfs
Ossmer	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, frigid Aquic Glossudalfs
Perchlake	Mixed, frigid Aquic Udipsamments
Perida	Clayey, smectitic, frigid Arenic Hapludalfs
Plainbo	Mixed, frigid Typic Udipsamments
Plover	Coarse-loamy, mixed, superactive, frigid Aquic Glossudalfs
Pomroy	Coarse-loamy, mixed, superactive, frigid Oxyaquic Hapludalfs
Rockmarsh	Loamy-skeletal, mixed, superactive, frigid Aquollic Hapludalfs
Rondeau	Marly, euic, frigid Limnic Haplosaprists
Rosholt	Coarse-loamy, mixed, superactive, frigid Haplic Glossudalfs
Sayner	Sandy, mixed, frigid Entic Haplorthods
Sconsin	Coarse-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Scott Lake	Coarse-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Seelyeville	Euic, frigid Typic Haplosaprists
Shawano	Mixed, frigid Typic Udipsamments
Siren	Fine-loamy over clayey, mixed, superactive, frigid Aquic Glossudalfs
Sissabagama	Mixed, frigid Oxyaquic Udipsamments
Skog	Sandy-skeletal, mixed, frigid Oxyaquic Udorthents
Slimlake	Sandy, mixed, frigid Oxyaquic Dystrudepts
Smestad	Coarse-loamy over clayey, mixed over smectitic, superactive, frigid Aquic Argiudolls
Soderbeck	Loamy-skeletal, mixed, active, frigid Aquic Hapludolls
Spoonerhill	Sandy, mixed, frigid Oxyaquic Dystrudepts
Stengel	Clayey, smectitic, frigid Aquic Arenic Hapludalfs
Tawas	Sandy or sandy-skeletal, mixed, euic, frigid Terric Haplosaprists
*Taylor	Very-fine, smectitic, frigid Aquertic Hapludalfs
Totagatic	Sandy, mixed, frigid Mollic Fluvaquents
Tradelake	Coarse-loamy over clayey, mixed over smectitic, superactive, frigid Oxyaquic Glossudalfs
Vilas	Sandy, mixed, frigid Entic Haplorthods
Wildwood	Very-fine, smectitic, nonacid, frigid Histic Humaquepts
Winterfield	Mixed, frigid Aquic Udipsamments
Wurtsmith	Mixed, frigid Oxyaquic Udipsamments

Soil Map Unit Descriptions

The map units delineated 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 a wet zone (a zone in which the soil moisture status is wet) is highest and lowest in the soil profile and ponding is shallowest and deepest on the soil surface. The descriptions also include the frequency of flooding (if it occurs) and the months in which flooding is most frequent and least frequent. Tables 25, 26, and 27 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 23 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, Karlsborg sand, 1 to 6 percent slopes, is a phase of the Karlsborg 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. Meenon loamy sand, 0 to 3 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 in a complex are somewhat similar in all areas. Haugen, very stony-Greenwood complex, 0 to 15 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. Seelyeville and Markey soils, 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. Map unit 2015, Pits, is an example.

Table 2 gives the acreage and proportionate extent of each map unit. Other tables 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.

3A—Totagatic-Bowstring-Ausable complex, 0 to 2 percent slopes, frequently flooded

Component Description

Totagatic and similar soils
Extent: 30 to 60 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 0 to 2 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Mostly sandy alluvium
Lowest frequency of flooding (if it occurs): Rare (January, February, July, August, December)
Highest frequency of flooding: Frequent (April, May)
Shallowest depth to wet zone: At the surface (April, May, November, December)
Deepest depth to wet zone: 2.5 feet (February, August)

Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 5.4 inches
Content of organic matter in the upper 10 inches: 28.2 percent
Typical profile:
Oa—0 to 4 inches; muck
Bw1—4 to 8 inches; loamy fine sand
Bw2—8 to 17 inches; fine sand
Cg1—17 to 28 inches; fine sand
Cg2—28 to 46 inches; sand
C—46 to 70 inches; sand
C´g—70 to 80 inches; sand

Bowstring and similar soils
Extent: 15 to 60 percent of the mapped areas
Geomorphic setting: Flood plains
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: Highly decomposed organic material that has thin layers of sandy or loamy material
Lowest frequency of flooding (if it occurs): Rare (January, February, July, August, December)
Highest frequency of flooding: Frequent (April, May)
Shallowest depth to wet zone: At the surface (April, May, November, December)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, December
Deepest ponding: 0.5 foot (April, May, November)
Available water capacity to a depth of 60 inches: 21.0 inches
Content of organic matter in the upper 10 inches: 80.0 percent
Typical profile:
Oa—0 to 38 inches; muck
Cg—38 to 47 inches; fine sand
O´a—47 to 80 inches; muck

Ausable and similar soils
Extent: 15 to 40 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 0 to 2 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Sandy alluvium with thin layers of organic material
Lowest frequency of flooding (if it occurs): Rare (January, February, July, August, December)
Highest frequency of flooding: Frequent (April, May)
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, December
Deepest ponding: 0.5 foot (April, May, November)
Available water capacity to a depth of 60 inches: 6.9 inches

Content of organic matter in the upper 10 inches: 70.0 percent
Typical profile:
Oa—0 to 10 inches; muck
Cg—10 to 60 inches; sand

12A—Makwa stony muck, 0 to 1 percent slopes, extremely stony, frequently flooded

Component Description

Makwa and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 0 to 1 percent
Texture of the surface layer: Stony muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Skeletal loamy alluvium over silty and clayey glaciolacustrine deposits
Lowest frequency of flooding (if it occurs): Rare (January, February, July, August, December)
Highest frequency of flooding: Frequent (April, May)
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, December
Deepest ponding: 0.5 foot (April, May, November)
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 71.8 percent
Typical profile:
Oa—0 to 8 inches; stony muck
A—8 to 16 inches; very gravelly loam
Bw—16 to 43 inches; stratified extremely gravelly coarse sandy loam to extremely gravelly sandy clay loam
Cg—43 to 65 inches; extremely gravelly sandy loam
2C—65 to 80 inches; stratified silt loam to silty clay

22A—Comstock silt loam, 0 to 3 percent slopes

Component Description

Comstock and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; stream terraces
Position on the landform: Footslopes and summits
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: Silty lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 5.0 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; silt loam
E—8 to 15 inches; silt loam
B/E—15 to 21 inches; silt loam
Bt—21 to 34 inches; silt loam
BC—34 to 44 inches; stratified silt loam to very fine sand
C—44 to 60 inches; stratified silt loam to very fine sand

27A—Scott Lake sandy loam, 0 to 3 percent slopes

Component Description

Scott Lake and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Footslopes
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: Moderately well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: 2.5 feet (April)
Deepest depth to wet zone: 5.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 4.6 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 10 inches; sandy loam
E/B—10 to 17 inches; sandy loam
B/E—17 to 24 inches; sandy loam
2Bt—24 to 31 inches; gravelly loamy sand
2C—31 to 80 inches; stratified sand to very gravelly coarse sand

28B—Haugen-Rosholt complex, 2 to 6 percent slopes, very stony

Component Description

Haugen, very stony, and similar soils
Extent: 20 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (March, April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October)
Ponding: None

Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 4 inches; sandy loam
Bw1—4 to 15 inches; sandy loam
Bw2—15 to 23 inches; gravelly sandy loam
E/B—23 to 35 inches; gravelly sandy loam
B/E—35 to 49 inches; sandy loam
Bt—49 to 79 inches; gravelly sandy loam
Cd—79 to 80 inches; gravelly sandy loam

Haugen and similar soils
Extent: 15 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (March, April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
Bw1—7 to 15 inches; sandy loam
Bw2—15 to 23 inches; gravelly sandy loam
E/B—23 to 35 inches; gravelly sandy loam
B/E—35 to 49 inches; sandy loam
Bt—49 to 79 inches; gravelly sandy loam
Cd—79 to 80 inches; gravelly sandy loam

Rosholt, very stony, and similar soils
Extent: 10 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: 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: Well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.6 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
A—0 to 4 inches; sandy loam
E—4 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam

2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

Rosholt and similar soils
Extent: 10 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: 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: Well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 1.7 percent
Typical profile:
Ap—0 to 8 inches; sandy loam
E—8 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

28C—Haugen-Rosholt complex, 6 to 12 percent slopes, very stony

Component Description

Haugen, very stony, and similar soils
Extent: 25 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (March, April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 4 inches; sandy loam
Bw1—4 to 15 inches; sandy loam
Bw2—15 to 23 inches; gravelly sandy loam
E/B—23 to 35 inches; gravelly sandy loam
B/E—35 to 49 inches; sandy loam
Bt—49 to 79 inches; gravelly sandy loam
Cd—79 to 80 inches; gravelly sandy loam

Haugen and similar soils
Extent: 10 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (March, April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
Bw1—7 to 15 inches; sandy loam
Bw2—15 to 23 inches; gravelly sandy loam
E/B—23 to 35 inches; gravelly sandy loam
B/E—35 to 49 inches; sandy loam
Bt—49 to 79 inches; gravelly sandy loam
Cd—79 to 80 inches; gravelly sandy loam

Rosholt, very stony, and similar soils
Extent: 10 to 40 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and 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: Well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.6 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
A—0 to 4 inches; sandy loam
E—4 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

Rosholt and similar soils
Extent: 10 to 40 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and 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: Well drained

Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 1.7 percent
Typical profile:
Ap—0 to 8 inches; sandy loam
E—8 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

38A—Rosholt sandy loam, 0 to 2 percent slopes

Component Description

Rosholt and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Summits
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: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 1.7 percent
Typical profile:
Ap—0 to 8 inches; sandy loam
E—8 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

38B—Rosholt sandy loam, 2 to 6 percent slopes

Component Description

Rosholt and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; 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: Well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None

Depth to wet zone: 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: 1.7 percent
Typical profile:
Ap—0 to 8 inches; sandy loam
E—8 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

38C—Rosholt sandy loam, 6 to 12 percent slopes

Component Description

Rosholt and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Backslopes and 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: Well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 1.7 percent
Typical profile:
Ap—0 to 8 inches; sandy loam
E—8 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

38D—Rosholt sandy loam, 12 to 20 percent slopes

Component Description

Rosholt and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Backslopes and shoulders
Slope range: 12 to 20 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 1.7 percent
Typical profile:
Ap—0 to 8 inches; sandy loam
E—8 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

42D—Amery sandy loam, 12 to 25 percent slopes, very stony

Component Description

Amery and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 12 to 25 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw—3 to 22 inches; sandy loam
E/B—22 to 34 inches; sandy loam
B/E—34 to 41 inches; gravelly sandy loam
Bt1—41 to 57 inches; gravelly sandy loam
Bt2—57 to 71 inches; sandy loam
Cd—71 to 80 inches; sandy loam

43B—Antigo silt loam, 1 to 6 percent slopes

Component Description

Antigo and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Summits, shoulders, and 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: Well drained
Parent material: Loess or silty alluvium underlain by sandy and gravelly outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; silt loam
E—9 to 12 inches; silt loam
B/E—12 to 19 inches; silt loam
Bt1—19 to 28 inches; silt loam
2Bt2—28 to 31 inches; loam
2Bt3—31 to 33 inches; very gravelly sandy loam
3C—33 to 60 inches; stratified sand to very gravelly coarse sand

43C—Antigo silt loam, 6 to 15 percent slopes

Component Description

Antigo and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Shoulders and backslopes
Slope range: 6 to 15 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Loess or silty alluvium underlain by sandy and gravelly outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; silt loam
E—9 to 12 inches; silt loam
B/E—12 to 19 inches; silt loam
Bt1—19 to 28 inches; silt loam
2Bt2—28 to 31 inches; loam
2Bt3—31 to 33 inches; very gravelly sandy loam
3C—33 to 60 inches; stratified sand to very gravelly coarse sand

63A—Crystal Lake silt loam, 0 to 2 percent slopes

Component Description

Crystal Lake and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Kames; lake plains; stream terraces
Position on the landform: Summits
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: Moderately well drained
Parent material: Mostly silty lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)

Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 12.4 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; silt loam
E—8 to 12 inches; silt loam
B/E—12 to 20 inches; silt loam
Bt—20 to 32 inches; silt loam
C—32 to 60 inches; stratified silt loam to very fine sand

63B—Crystal Lake silt loam, 2 to 6 percent slopes

Component Description

Crystal Lake and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; stream terraces
Position on the landform: Backslopes, summits, 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: Mostly silty lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 12.4 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; silt loam
E—8 to 12 inches; silt loam
B/E—12 to 20 inches; silt loam
Bt—20 to 32 inches; silt loam
C—32 to 60 inches; stratified silt loam to very fine sand

63C—Crystal Lake silt loam, 6 to 12 percent slopes

Component Description

Crystal Lake and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; stream terraces
Position on the landform: Shoulders and backslopes
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: Mostly silty lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)

Deepest depth to wet zone: 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: 12.4 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 8 inches; silt loam
E—8 to 12 inches; silt loam
B/E—12 to 20 inches; silt loam
Bt—20 to 32 inches; silt loam
C—32 to 60 inches; stratified silt loam to very fine sand

64A—Totagatic-Winterfield complex, 0 to 2 percent slopes, frequently flooded

Component Description

Totagatic and similar soils
Extent: 45 to 65 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Mostly sandy alluvium
Lowest frequency of flooding (if it occurs): Rare (January, February, July, August, December)
Highest frequency of flooding: Frequent (April, May)
Shallowest depth to wet zone: At the surface (April, May, November, December)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 5.4 inches
Content of organic matter in the upper 10 inches: 28.2 percent
Typical profile:
Oa—0 to 4 inches; muck
Bw1—4 to 8 inches; loamy fine sand
Bw2—8 to 17 inches; fine sand
Cg1—17 to 28 inches; fine sand
Cg2—28 to 46 inches; sand
C—46 to 70 inches; sand
C´g—70 to 80 inches; sand

Winterfield and similar soils
Extent: 25 to 55 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 1 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: Sandy alluvium
Lowest frequency of flooding (if it occurs): Rare (January, February, December)
Highest frequency of flooding: Frequent (April)

Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 3.0 feet (September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
A—0 to 7 inches; loamy sand
C—7 to 60 inches; sand

69C—Keweenaw-Sayner-Vilas complex, 6 to 15 percent slopes, stony

Component Description

Keweenaw and similar soils
Extent: 20 to 80 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 6 to 15 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Sandy till
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.8 inches
Content of organic matter in the upper 10 inches: 0.6 percent
Typical profile:
A—0 to 2 inches; loamy sand
E—2 to 4 inches; loamy sand
Bs1,Bs2—4 to 16 inches; loamy sand
Bs3—16 to 20 inches; loamy sand
E´—20 to 27 inches; loamy sand
E/B—27 to 43 inches; sand
B/E—43 to 75 inches; loamy sand
C—75 to 80 inches; loamy sand

Sayner and similar soils
Extent: 20 to 40 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 15 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy and gravelly outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.1 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
A—0 to 2 inches; loamy sand
E—2 to 4 inches; loamy sand

Bs1—4 to 7 inches; loamy sand
Bs2—7 to 14 inches; sand
BC—14 to 22 inches; gravelly sand
C—22 to 60 inches; stratified sand to very gravelly coarse sand

Vilas and similar soils
Extent: 10 to 30 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 15 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: 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: 1.5 percent
Typical profile:
A—0 to 2 inches; loamy sand
E—2 to 4 inches; loamy sand
Bs1—4 to 11 inches; loamy sand
Bs2—11 to 23 inches; sand
B—23 to 32 inches; sand
C—32 to 80 inches; sand

69E—Keweenaw-Sayner-Vilas complex, 15 to 45 percent slopes, stony

Component Description

Keweenaw and similar soils
Extent: 20 to 80 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 15 to 45 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Sandy till
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.8 inches
Content of organic matter in the upper 10 inches: 0.6 percent
Typical profile:
A—0 to 2 inches; loamy sand
E—2 to 4 inches; loamy sand
Bs1,Bs2—4 to 16 inches; loamy sand
Bs3—16 to 20 inches; loamy sand
E´—20 to 27 inches; loamy sand
E/B—27 to 43 inches; sand
B/E—43 to 75 inches; loamy sand
C—75 to 80 inches; loamy sand

Sayner and similar soils
Extent: 20 to 40 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 15 to 45 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy and gravelly outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.1 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
A—0 to 2 inches; loamy sand
E—2 to 4 inches; loamy sand
Bs1—4 to 7 inches; loamy sand
Bs2—7 to 14 inches; sand
BC—14 to 22 inches; gravelly sand
C—22 to 60 inches; stratified sand to very gravelly coarse sand

Vilas and similar soils
Extent: 10 to 30 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 15 to 45 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: 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: 1.5 percent
Typical profile:
A—0 to 2 inches; loamy sand
E—2 to 4 inches; loamy sand
Bs1—4 to 11 inches; loamy sand
Bs2—11 to 23 inches; sand
B—23 to 32 inches; sand
C—32 to 80 inches; sand

82B—Cutaway-Branstad complex, 1 to 6 percent slopes

Component Description

Cutaway and similar soils
Extent: 15 to 85 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Summits
Slope range: 1 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: Sandy eolian deposits over calcareous loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April, May)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.0 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
A—0 to 10 inches; loamy fine sand
E—10 to 21 inches; loamy fine sand
2B/E—21 to 24 inches; fine sandy loam
2Bt1—24 to 35 inches; sandy clay loam
2Bt2—35 to 53 inches; loam
2C—53 to 80 inches; loam

Branstad and similar soils
Extent: 15 to 85 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Summits
Slope range: 2 to 6 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: Loamy calcareous till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April, May)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 14 inches; fine sandy loam
E/B—14 to 20 inches; fine sandy loam
B/E—20 to 45 inches; sandy clay loam
Bt1—45 to 55 inches; sandy clay loam
Bt2—55 to 68 inches; fine sandy loam
Btk—68 to 80 inches; fine sandy loam

82C—Cutaway-Branstad complex, 6 to 12 percent slopes

Component Description

Cutaway and similar soils
Extent: 50 to 85 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Backslopes and shoulders
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: Moderately well drained
Parent material: Sandy eolian deposits over calcareous loamy till

Flooding: None
Shallowest depth to wet zone: 2.0 feet (April, May)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.0 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
A—0 to 10 inches; loamy fine sand
E—10 to 21 inches; loamy fine sand
2B/E—21 to 24 inches; fine sandy loam
2Bt1—24 to 35 inches; sandy clay loam
2Bt2—35 to 53 inches; loam
2C—53 to 80 inches; loam

Branstad and similar soils
Extent: 15 to 50 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 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: Loamy calcareous till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April, May)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 14 inches; fine sandy loam
E/B—14 to 20 inches; fine sandy loam
B/E—20 to 45 inches; sandy clay loam
Bt1—45 to 55 inches; sandy clay loam
Bt2—55 to 68 inches; fine sandy loam
Btk—68 to 80 inches; fine sandy loam

83A—Smestad loamy fine sand, 0 to 3 percent slopes

Component Description

Smestad and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Footslopes
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: Sandy and loamy lacustrine deposits over clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April, May)

Deepest depth to wet zone: More than 6.7 feet (July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 6.4 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 32 inches; loamy fine sand
2Bt—32 to 37 inches; fine sandy loam
3Btg—37 to 57 inches; clay
3Bkg—57 to 80 inches; clay

85B—Taylor loam, 2 to 6 percent slopes

Component Description

Taylor and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Summits
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: Clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 7.0 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; loam
E—9 to 14 inches; clay loam
Bt—14 to 25 inches; clay
BC—25 to 32 inches; clay
C—32 to 60 inches; clay

85C—Taylor loam, 6 to 12 percent slopes

Component Description

Taylor and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Lake plains
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: Moderately well drained
Parent material: Clayey glaciolacustrine deposits; clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)

Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 7.0 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; loam
E—9 to 14 inches; clay loam
Bt—14 to 25 inches; clay
BC—25 to 32 inches; clay
C—32 to 60 inches; clay

86A—Indus-Alango complex, 0 to 2 percent slopes

Component Description

Indus and similar soils
Extent: 60 to 85 percent of the mapped areas
Geomorphic setting: Flats on lake plains
Slope range: 0 to 1 percent
Texture of the surface layer: Clay loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Lacustrine deposits
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.3 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap—0 to 9 inches; clay loam
Btg—9 to 21 inches; clay
BC—21 to 25 inches; clay
Ckg—25 to 39 inches; clay
Cg—39 to 60 inches; clay

Alango and similar soils
Extent: 15 to 35 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Summits
Slope range: 1 to 2 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: Lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April, May)
Deepest depth to wet zone: More than 6.7 feet (July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 8.7 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
Ap—0 to 9 inches; clay loam
E—9 to 10 inches; silty clay loam

Btg—10 to 28 inches; clay
Bkg—28 to 60 inches; clay
Cg—60 to 80 inches; clay

89A—Wildwood muck, 0 to 1 percent slopes

Component Description

Wildwood and similar soils
Extent: 65 to 95 percent of the mapped areas
Geomorphic setting: Depressions on lake plains
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: Thin mantle of organic soil material over clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: At the surface (April, May)
Deepest depth to wet zone: 1.0 foot (January, February)
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 5.7 inches
Content of organic matter in the upper 10 inches: 62.0 percent
Typical profile:
Oa—0 to 12 inches; muck
A—12 to 17 inches; silty clay
Bg—17 to 24 inches; clay
Cg—24 to 60 inches; clay

96B—Karlsborg sand, 1 to 6 percent slopes

Component Description

Karlsborg and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Summits
Slope range: 1 to 6 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 1.2 percent

Typical profile:
Ap—0 to 9 inches; sand
Bw—9 to 28 inches; sand
2Bt—28 to 48 inches; clay
3C—48 to 80 inches; sand

96C—Karlsborg sand, 6 to 12 percent slopes

Component Description

Karlsborg and similar soils
Extent: 25 to 60 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; sand
Bw—9 to 28 inches; sand
2Bt—28 to 48 inches; clay
3C—48 to 80 inches; sand

96D—Karlsborg sand, 12 to 20 percent slopes

Component Description

Karlsborg and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Backslopes and shoulders
Slope range: 12 to 20 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; sand
Bw—9 to 28 inches; sand
2Bt—28 to 48 inches; clay
3C—48 to 80 inches; sand

100B—Menahga sand, 0 to 6 percent slopes

Component Description

Menahga and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Summits
Slope range: 0 to 6 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.1 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 2 inches; sand
Bw—2 to 25 inches; sand
C—25 to 80 inches; sand

100C—Menahga sand, 6 to 12 percent slopes

Component Description

Menahga and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: 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: 0.3 percent
Typical profile:
Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 2 inches; sand

Bw—2 to 25 inches; sand
C—25 to 80 inches; sand

100D—Menahga sand, 12 to 30 percent slopes

Component Description

Menahga and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Shoulders and backslopes
Slope range: 12 to 30 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: 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: 0.3 percent
Typical profile:
Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 2 inches; sand
Bw—2 to 25 inches; sand
C—25 to 80 inches; sand

120B—Kost fine sand, 0 to 6 percent slopes

Component Description

Kost and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Summits
Slope range: 0 to 6 percent
Texture of the surface layer: Fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy eolian deposits
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.2 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; fine sand
A—9 to 25 inches; fine sand
Bw—25 to 36 inches; sand
BC—36 to 42 inches; fine sand
C—42 to 60 inches; sand

127D—Amery-Rosholt complex, 12 to 20 percent slopes, very stony

Component Description

Amery and similar soils
Extent: 40 to 80 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 12 to 20 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw—3 to 22 inches; sandy loam
E/B—22 to 34 inches; sandy loam
B/E—34 to 41 inches; gravelly sandy loam
Bt1—41 to 57 inches; gravelly sandy loam
Bt2—57 to 71 inches; sandy loam
Cd—71 to 80 inches; sandy loam

Rosholt and similar soils
Extent: 15 to 60 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders and backslopes
Slope range: 12 to 20 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.6 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
A—0 to 4 inches; sandy loam
E—4 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

127E—Amery-Rosholt complex, 20 to 45 percent slopes, very stony

Component Description

Amery and similar soils
Extent: 40 to 80 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 20 to 45 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw—3 to 22 inches; sandy loam
E/B—22 to 34 inches; sandy loam
B/E—34 to 41 inches; gravelly sandy loam
Bt1—41 to 57 inches; gravelly sandy loam
Bt2—57 to 71 inches; sandy loam
Cd—71 to 80 inches; sandy loam

Rosholt and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 20 to 45 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.6 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
A—0 to 4 inches; sandy loam
E—4 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

151A—Bluffton loam, 0 to 2 percent slopes

Component Description

Bluffton and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Drainageways and depressions on moraines
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: Loamy calcareous till
Flooding: None
Shallowest depth to wet zone: At the surface (April, May)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
Ap—0 to 8 inches; loam
A—8 to 19 inches; loam
Bg—19 to 22 inches; fine sandy loam
C1—22 to 26 inches; fine sandy loam
C2—26 to 38 inches; loam
C3—38 to 60 inches; sandy clay loam

152A—Alstad loam, 0 to 3 percent slopes

Component Description

Alstad and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Footslopes
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: Loamy calcareous till
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.0 inches
Content of organic matter in the upper 10 inches: 3.3 percent
Typical profile:
Ap—0 to 9 inches; loam
E—9 to 15 inches; fine sandy loam
E/B—15 to 18 inches; fine sandy loam
B/E—18 to 24 inches; sandy clay loam
Bt—24 to 49 inches; sandy clay loam
C—49 to 60 inches; fine sandy loam

154E—Cushing fine sandy loam, 20 to 35 percent slopes

Component Description

Cushing and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Backslopes and shoulders
Slope range: 20 to 35 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: Loamy calcareous till
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
A—0 to 5 inches; fine sandy loam
E—5 to 15 inches; fine sandy loam
B/E—15 to 33 inches; fine sandy loam
Bt—33 to 57 inches; loam
Btk—57 to 65 inches; fine sandy loam
Bk—65 to 73 inches; fine sandy loam
C—73 to 80 inches; fine sandy loam

156B—Magnor, very stony-Magnor complex, 0 to 4 percent slopes

Component Description

Magnor, very stony, and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Somewhat poorly drained
Parent material: Loess or silty alluvium underlain by dense loamy till
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
A—0 to 4 inches; silt loam
E—4 to 11 inches; silt loam
E/B—11 to 16 inches; silt loam
B/E—16 to 21 inches; silt loam
2Bt1,2Bt2—21 to 39 inches; sandy loam
2Bt3—39 to 58 inches; fine sandy loam
2Cd—58 to 60 inches; fine sandy loam

Magnor and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Somewhat poorly drained
Parent material: Loess or silty alluvium underlain by dense loamy till
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
Ap—0 to 8 inches; silt loam
E—8 to 11 inches; silt loam
E/B—11 to 16 inches; silt loam
B/E—16 to 21 inches; silt loam
2Bt1,2Bt2—21 to 39 inches; sandy loam
2Bt3—39 to 58 inches; fine sandy loam
2Cd—58 to 60 inches; fine sandy loam

157B—Freeon, very stony-Freeon complex, 2 to 6 percent slopes

Component Description

Freeon, very stony, and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Summits and footslopes
Slope range: 2 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Loess or silty alluvium underlain by dense loamy till
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
A—0 to 4 inches; silt loam
E/B—4 to 19 inches; silt loam
2B/E—19 to 39 inches; sandy loam
2Bt—39 to 53 inches; sandy loam
2BCd—53 to 80 inches; sandy loam

Freeon and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines

Position on the landform: Footslopes and summits
Slope range: 2 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Loess or silty alluvium underlain by dense loamy till
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
Ap—0 to 4 inches; silt loam
E/B—4 to 19 inches; silt loam
2B/E—19 to 39 inches; sandy loam
2Bt—39 to 53 inches; sandy loam
2BCd—53 to 80 inches; sandy loam

157C—Freeon, very stony-Freeon complex, 6 to 12 percent slopes

Component Description

Freeon, very stony, and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Loess or silty alluvium underlain by dense loamy till
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
A—0 to 4 inches; silt loam
E/B—4 to 19 inches; silt loam
2B/E—19 to 39 inches; sandy loam
2Bt—39 to 53 inches; sandy loam
2BCd—53 to 80 inches; sandy loam

Freeon and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material

Drainage class: Moderately well drained
Parent material: Loess or silty alluvium underlain by dense loamy till
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
Ap—0 to 4 inches; silt loam
E/B—4 to 19 inches; silt loam
2B/E—19 to 39 inches; sandy loam
2Bt—39 to 53 inches; sandy loam
2BCd—53 to 80 inches; sandy loam

160A—Oesterle sandy loam, 0 to 2 percent slopes

Component Description

Oesterle and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Footslopes
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 poorly drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
E/B—7 to 11 inches; sandy loam
Bt—11 to 31 inches; sandy loam
2C—31 to 60 inches; stratified sand to very gravelly coarse sand

165B—Elderon sandy loam, 2 to 6 percent slopes

Component Description

Elderon and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Stream terraces; eskers; kames
Position on the landform: 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: Thin loamy deposits over cobbly and gravelly sandy drift

Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.0 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
Bs—7 to 15 inches; very cobbly coarse sandy loam
Bt—15 to 44 inches; extremely cobbly loamy coarse sand
C—44 to 60 inches; extremely cobbly coarse sand

185B—Tradelake-Taylor complex, 1 to 6 percent slopes

Component Description

Tradelake and similar soils
Extent: 40 to 80 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Summits
Slope range: 1 to 6 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: Loamy alluvium deposits over clayey lacustrine deposits over sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 13 inches; fine sandy loam
B/E—13 to 21 inches; fine sandy loam
Bt1—21 to 25 inches; sandy loam
2Bt2,2Bt3—25 to 48 inches; clay
2Btg—48 to 52 inches; clay
3C—52 to 80 inches; sand

Taylor and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Summits
Slope range: 1 to 6 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: Clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None

Available water capacity to a depth of 60 inches: 7.0 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 14 inches; clay loam
Bt—14 to 25 inches; clay
BC—25 to 32 inches; clay
C—32 to 60 inches; clay

185C—Tradelake-Taylor complex, 6 to 12 percent slopes

Component Description

Tradelake and similar soils
Extent: 40 to 80 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 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: Loamy alluvium deposits over clayey lacustrine deposits over sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: 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: 7.3 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 13 inches; fine sandy loam
B/E—13 to 21 inches; fine sandy loam
Bt1—21 to 25 inches; sandy loam
2Bt2,2Bt3—25 to 48 inches; clay
2Btg—48 to 52 inches; clay
3C—52 to 80 inches; sand

Taylor and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 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: Clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 7.0 inches
Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 14 inches; clay loam
Bt—14 to 25 inches; clay
BC—25 to 32 inches; clay
C—32 to 60 inches; clay

185D—Tradelake-Taylor complex, 12 to 25 percent slopes

Component Description

Tradelake and similar soils
Extent: 40 to 85 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Backslopes and shoulders
Slope range: 12 to 25 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: Loamy alluvium deposits over clayey lacustrine deposits over sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: 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: 7.3 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 13 inches; fine sandy loam
B/E—13 to 21 inches; fine sandy loam
Bt1—21 to 25 inches; sandy loam
2Bt2,2Bt3—25 to 48 inches; clay
2Btg—48 to 52 inches; clay
3C—52 to 80 inches; sand

Taylor and similar soils
Extent: 15 to 50 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Backslopes and shoulders
Slope range: 12 to 25 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: Clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 7.0 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam

E—9 to 14 inches; clay loam
Bt—14 to 25 inches; clay
BC—25 to 32 inches; clay
C—32 to 60 inches; clay

185E—Tradelake-Taylor complex, 25 to 35 percent slopes

Component Description

Tradelake and similar soils
Extent: 40 to 70 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Backslopes and shoulders
Slope range: 25 to 35 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: Loamy alluvium deposits over clayey lacustrine deposits over sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: 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: 7.3 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 13 inches; fine sandy loam
B/E—13 to 21 inches; fine sandy loam
Bt1—21 to 25 inches; sandy loam
2Bt2,2Bt3—25 to 48 inches; clay
2Btg—48 to 52 inches; clay
3C—52 to 80 inches; sand

Taylor and similar soils
Extent: 30 to 60 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Backslopes and shoulders
Slope range: 25 to 35 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: Clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.0 foot (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 7.0 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 14 inches; clay loam

Bt—14 to 25 inches; clay
BC—25 to 32 inches; clay
C—32 to 60 inches; clay

189A—Siren loam, 0 to 3 percent slopes

Component Description

Siren and similar soils
Extent: 65 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; stream terraces
Position on the landform: Footslopes
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: Thin loamy mantle over clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 3.2 percent
Typical profile:
Ap—0 to 9 inches; loam
E—9 to 13 inches; sandy loam
B/E—13 to 20 inches; sandy clay loam
2Bt—20 to 43 inches; clay
2Bk—43 to 80 inches; clay

193A—Minocqua muck, 0 to 2 percent slopes

Component Description

Minocqua and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on outwash plains and stream terraces
Slope range: 0 to 2 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Silty and loamy alluvium underlain by sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 6.2 inches
Content of organic matter in the upper 10 inches: 18.6 percent
Typical profile:
Oe—0 to 4 inches; muck
Eg—4 to 15 inches; silt loam

2Bg—15 to 28 inches; loam
3C—28 to 60 inches; stratified sand to very gravelly coarse sand

337A—Plover fine sandy loam, 0 to 3 percent slopes

Component Description

Plover and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; stream terraces
Position on the landform: Footslopes
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: Somewhat poorly drained
Parent material: Stratified loamy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 5.0 feet (September)
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
E—10 to 13 inches; fine sandy loam
B/E—13 to 18 inches; fine sandy loam
Bt—18 to 32 inches; fine sandy loam
C—32 to 60 inches; stratified fine sand to silt

368B—Mahtomedi-Cress complex, 2 to 6 percent slopes

Component Description

Mahtomedi and similar soils
Extent: 30 to 80 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Summits
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: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

Cress and similar soils
Extent: 15 to 60 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: 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: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

368C—Mahtomedi-Cress complex, 6 to 12 percent slopes

Component Description

Mahtomedi and similar soils
Extent: 20 to 80 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Backslopes 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: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

Cress and similar soils
Extent: 15 to 60 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Shoulders 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: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

368D—Mahtomedi-Cress complex, 12 to 25 percent slopes

Component Description

Mahtomedi and similar soils
Extent: 20 to 75 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Backslopes and shoulders
Slope range: 12 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: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

Cress and similar soils
Extent: 20 to 75 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Shoulders and backslopes
Slope range: 12 to 25 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: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent

Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

368E—Mahtomedi-Cress complex, 25 to 35 percent slopes

Component Description

Mahtomedi and similar soils
Extent: 20 to 75 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Shoulders and backslopes
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: Gravelly sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

Cress and similar soils
Extent: 20 to 75 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Shoulders and backslopes
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: Somewhat excessively drained
Parent material: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

380B—Cress-Rosholt complex, 2 to 6 percent slopes

Component Description

Cress and similar soils
Extent: 35 to 75 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: 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: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

Rosholt and similar soils
Extent: 25 to 65 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: 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: Well drained
Parent material: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 1.7 percent
Typical profile:
Ap—0 to 8 inches; sandy loam
E—8 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

380C—Cress-Rosholt complex, 6 to 12 percent slopes

Component Description

Cress and similar soils
Extent: 35 to 75 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces

Position on the landform: Backslopes and 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: Somewhat excessively drained
Parent material: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

Rosholt and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Shoulders 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: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 1.7 percent
Typical profile:
Ap—0 to 8 inches; sandy loam
E—8 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

380D—Cress-Rosholt complex, 12 to 25 percent slopes

Component Description

Cress and similar soils
Extent: 35 to 75 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Shoulders and backslopes
Slope range: 12 to 25 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: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash

Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

Rosholt and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Backslopes and shoulders
Slope range: 12 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: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 1.7 percent
Typical profile:
Ap—0 to 8 inches; sandy loam
E—8 to 10 inches; sandy loam
B/E—10 to 14 inches; sandy loam
Bt—14 to 28 inches; sandy loam
2Bt—28 to 34 inches; gravelly loamy sand
2C—34 to 60 inches; stratified sand to very gravelly coarse sand

383B—Mahtomedi loamy sand, 0 to 6 percent slopes

Component Description

Mahtomedi and similar soils
Extent: 55 to 100 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Summits
Slope range: 0 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: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand

Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

383C—Mahtomedi loamy sand, 6 to 12 percent slopes

Component Description

Mahtomedi and similar soils
Extent: 55 to 100 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Shoulders 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: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

383D—Mahtomedi loamy sand, 12 to 30 percent slopes

Component Description

Mahtomedi and similar soils
Extent: 55 to 100 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Shoulders and backslopes
Slope range: 12 to 30 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

392C—Rockmarsh-Dairyland-Makwa, seeped, complex, 2 to 20 percent slopes, very stony

Component Description

Rockmarsh and similar soils
Extent: 20 to 50 percent of the mapped areas
Geomorphic setting: Stream terraces
Position on the landform: Backslopes
Slope range: 2 to 20 percent
Texture of the surface layer: Cobbly mucky peat
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Somewhat poorly drained
Parent material: Loamy-skeletal alluvium over dense loamy till
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 10.1 percent
Typical profile:
Oe—0 to 1 inch; cobbly mucky peat
A—1 to 8 inches; very cobbly silt loam
2Bw—8 to 23 inches; extremely gravelly loamy coarse sand
3Bt—23 to 46 inches; extremely gravelly sandy clay loam
3Cd—46 to 80 inches; extremely cobbly sandy loam

Dairyland and similar soils
Extent: 20 to 40 percent of the mapped areas
Geomorphic setting: Stream terraces
Position on the landform: Backslopes
Slope range: 2 to 20 percent
Texture of the surface layer: Cobbly sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy-skeletal alluvium over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
Oe—0 to 1 inch; moderately decomposed plant material
A—1 to 7 inches; cobbly sandy loam
Bw—7 to 14 inches; very gravelly loamy sand
Bt1—14 to 36 inches; very gravelly loamy sand
Bt2—36 to 49 inches; extremely gravelly loamy sand
2Cd—49 to 80 inches; sandy loam

Makwa and similar soils
Extent: 15 to 30 percent of the mapped areas
Geomorphic setting: Stream terraces
Position on the landform: Backslopes
Slope range: 2 to 12 percent

Texture of the surface layer: Stony muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Poorly drained
Parent material: Skeletal loamy alluvium over silty and clayey glaciolacustrine deposits
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: 2.5 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: 71.8 percent
Typical profile:
Oa—0 to 8 inches; stony muck
A—8 to 16 inches; very gravelly loam
Bw—16 to 43 inches; stratified extremely gravelly coarse sandy loam to extremely gravelly sandy clay loam
Cg—43 to 65 inches; extremely gravelly sandy loam
2C—65 to 80 inches; stratified silt loam to silty clay

396B—Friendship-Wurtsmith-Grayling complex, 0 to 6 percent slopes

Component Description

Friendship and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Footslopes
Slope range: 0 to 3 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Sandy eolian deposits
Flooding: None
Shallowest depth to wet zone: 4.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 3.6 inches
Content of organic matter in the upper 10 inches: 0.7 percent
Typical profile:
A—0 to 4 inches; sand
Bw—4 to 29 inches; sand
C—29 to 60 inches; sand

Wurtsmith and similar soils
Extent: 20 to 55 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Footslopes
Slope range: 0 to 3 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Sandy eolian deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)

Deepest depth to wet zone: 5.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 3.7 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
A—0 to 6 inches; sand
Bw—6 to 33 inches; sand
C—33 to 60 inches; sand

Grayling and similar soils
Extent: 15 to 35 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Summits
Slope range: 1 to 6 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy eolian deposits
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.8 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
A—0 to 3 inches; sand
Bw—3 to 15 inches; sand
BC—15 to 23 inches; sand
C—23 to 60 inches; sand

397A—Perchlake loamy fine sand, 0 to 2 percent slopes

Component Description

Perchlake and similar soils
Extent: 65 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; outwash plains
Position on the landform: Footslopes
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: Sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 4.9 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy fine sand
Bw—9 to 18 inches; fine sand
E&Bt—18 to 42 inches; sand, loamy sand
2Btg—42 to 46 inches; fine sandy loam
3C—46 to 60 inches; sand

399B—Grayling sand, 0 to 6 percent slopes

Component Description

Grayling and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Summits
Slope range: 0 to 6 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy eolian deposits
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.8 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
A—0 to 3 inches; sand
Bw—3 to 15 inches; sand
BC—15 to 23 inches; sand
C—23 to 60 inches; sand

399C—Grayling sand, 6 to 12 percent slopes

Component Description

Grayling and similar soils
Extent: 93 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy eolian deposits
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.8 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
A—0 to 3 inches; sand
Bw—3 to 15 inches; sand
BC—15 to 23 inches; sand
C—23 to 60 inches; sand

399D—Grayling sand, 12 to 30 percent slopes

Component Description

Grayling and similar soils
Extent: 93 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains

Position on the landform: Shoulders and backslopes
Slope range: 12 to 30 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy eolian deposits
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.8 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
A—0 to 3 inches; sand
Bw—3 to 15 inches; sand
BC—15 to 23 inches; sand
C—23 to 60 inches; sand

406A—Loxley mucky peat, 0 to 1 percent slopes

Component Description

Loxley and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains and outwash plains
Slope range: 0 to 1 percent
Texture of the surface layer: Mucky peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Herbaceous organic material more than 51 inches thick
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 1.0 foot (January, February)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 25.2 inches
Content of organic matter in the upper 10 inches: 80.0 percent
Typical profile:
Oe—0 to 13 inches; mucky peat
Oa—13 to 60 inches; muck

407A—Seelyeville and Markey soils, 0 to 1 percent slopes

Component Description

Seelyeville and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways and depressions on outwash plains
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: Herbaceous organic material more than 51 inches thick
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 62.0 percent
Typical profile:
Oa—0 to 80 inches; muck

Markey and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways and depressions on outwash plains
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: Herbaceous organic material 16 to 51 inches thick overlying sandy deposits
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 14.4 inches
Content of organic matter in the upper 10 inches: 70.0 percent
Typical profile:
Oa—0 to 32 inches; muck
Cg—32 to 60 inches; sand

410A—Seelyeville and Cathro soils, 0 to 1 percent slopes

Component Description

Seelyeville and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways and depressions on outwash plains
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: Herbaceous organic material more than 51 inches thick
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 62.0 percent
Typical profile:
Oa—0 to 80 inches; muck

Cathro and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on disintegration moraines
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: Herbaceous organic material 16 to 51 inches thick over loamy or silty deposits
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 16.6 inches
Content of organic matter in the upper 10 inches: 72.5 percent
Typical profile:
Oa—0 to 28 inches; muck
Cg1—28 to 49 inches; loam
Cg2—49 to 60 inches; sandy loam

419A—Seelyeville, Cathro, and Markey soils, 0 to 1 percent slopes

Component Description

Seelyeville and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways and depressions on outwash plains
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: Herbaceous organic material more than 51 inches thick
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 62.0 percent
Typical profile:
Oa—0 to 80 inches; muck

Cathro and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on disintegration moraines
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: Herbaceous organic material 16 to 51 inches thick over loamy or silty deposits
Flooding: None

Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 16.6 inches
Content of organic matter in the upper 10 inches: 72.5 percent
Typical profile:
Oa—0 to 28 inches; muck
Cg1—28 to 49 inches; loam
Cg2—49 to 60 inches; sandy loam

Markey and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways and depressions on outwash plains
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: Herbaceous organic material 16 to 51 inches thick over sandy deposits
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 14.4 inches
Content of organic matter in the upper 10 inches: 70.0 percent
Typical profile:
Oa—0 to 32 inches; muck
Cg—32 to 60 inches; sand

421A—Dora, Markey, and Seelyeville soils, 0 to 1 percent slopes

Component Description

Dora and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on lake plains
Slope range: 0 to 1 percent
Texture of the surface layer: Mucky peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Herbaceous organic material 16 to 51 inches thick over clayey material
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 16.7 inches
Content of organic matter in the upper 10 inches: 72.5 percent
Typical profile:
Oe—0 to 12 inches; mucky peat

Oa—12 to 32 inches; muck
A—32 to 36 inches; mucky silty clay loam
Cg1—36 to 42 inches; silty clay loam
Cg2,Cg3—42 to 60 inches; silty clay

Markey and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways and depressions on outwash plains
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: Herbaceous organic material 16 to 51 inches thick over sandy deposits
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 14.4 inches
Content of organic matter in the upper 10 inches: 70.0 percent
Typical profile:
Oa—0 to 32 inches; muck
Cg—32 to 60 inches; sand

Seelyeville and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways and depressions on outwash plains
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: Herbaceous organic material more than 51 inches thick
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 62.0 percent
Typical profile:
Oa—0 to 80 inches; muck

422A—Seelyeville, Cathro, and Rondeau soils, 0 to 1 percent slopes

Component Description

Seelyeville and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways and depressions on outwash plains
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: Herbaceous organic material more than 51 inches thick
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 62.0 percent
Typical profile:
Oa—0 to 80 inches; muck

Cathro and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on disintegration moraines
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: Herbaceous organic material 16 to 51 inches thick over loamy or silty deposits
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 16.6 inches
Content of organic matter in the upper 10 inches: 72.5 percent
Typical profile:
Oa—0 to 28 inches; muck
Cg1—28 to 49 inches; loam
Cg2—49 to 60 inches; sandy loam

Rondeau and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on moraines
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: Herbaceous organic material 16 to 51 inches thick over limnic materials (mostly marl)
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 21.8 inches
Content of organic matter in the upper 10 inches: 62.0 percent
Typical profile:
Oa—0 to 44 inches; muck
Cg—44 to 60 inches; marl

426B—Emmert-Mahtomedi-Menahga complex, 2 to 6 percent slopes

Component Description

Emmert and similar soils
Extent: 30 to 80 percent of the mapped areas
Geomorphic setting: Stream terraces; eskers; outwash plains
Position on the landform: Summits
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: Sandy-skeletal outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 1.9 inches
Content of organic matter in the upper 10 inches: 0.2 percent
Typical profile:
A—0 to 1 inch; loamy sand
Bw—1 to 5 inches; gravelly loamy coarse sand
BC—5 to 24 inches; very gravelly coarse sand
C—24 to 60 inches; very gravelly coarse sand

Mahtomedi and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains; eskers
Position on the landform: Summits
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: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

Menahga and similar soils
Extent: 15 to 40 percent of the mapped areas
Geomorphic setting: Outwash plains; eskers; stream terraces
Position on the landform: Summits
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: Sandy outwash
Flooding: None

Depth to wet zone: 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: 0.3 percent
Typical profile:
Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 2 inches; loamy sand
Bw—2 to 25 inches; sand
C—25 to 80 inches; sand

426C—Emmert-Mahtomedi-Menahga complex, 6 to 12 percent slopes

Component Description

Emmert and similar soils
Extent: 30 to 80 percent of the mapped areas
Geomorphic setting: Stream terraces; eskers; outwash plains
Position on the landform: Shoulders 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: Sandy-skeletal outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 1.9 inches
Content of organic matter in the upper 10 inches: 0.2 percent
Typical profile:
A—0 to 1 inch; loamy sand
Bw—1 to 5 inches; gravelly loamy coarse sand
BC—5 to 24 inches; very gravelly coarse sand
C—24 to 60 inches; very gravelly coarse sand

Mahtomedi and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Eskers; stream terraces; outwash plains
Position on the landform: Backslopes 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: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

Menahga and similar soils
Extent: 15 to 20 percent of the mapped areas
Geomorphic setting: Stream terraces; eskers; outwash plains
Position on the landform: Backslopes 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: Sandy outwash
Flooding: None
Depth to wet zone: 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: 0.3 percent
Typical profile:
Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 2 inches; loamy sand
Bw—2 to 25 inches; sand
C—25 to 80 inches; sand

426D—Emmert-Mahtomedi-Menahga complex, 12 to 30 percent slopes

Component Description

Emmert and similar soils
Extent: 30 to 80 percent of the mapped areas
Geomorphic setting: Eskers; outwash plains; stream terraces
Position on the landform: Shoulders and backslopes
Slope range: 12 to 30 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy-skeletal outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 1.9 inches
Content of organic matter in the upper 10 inches: 0.2 percent
Typical profile:
A—0 to 1 inch; loamy sand
Bw—1 to 5 inches; gravelly loamy coarse sand
BC—5 to 24 inches; very gravelly coarse sand
C—24 to 60 inches; very gravelly coarse sand

Mahtomedi and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Eskers; stream terraces; outwash plains
Position on the landform: Shoulders and backslopes
Slope range: 12 to 30 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None

Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

Menahga and similar soils
Extent: 15 to 30 percent of the mapped areas
Geomorphic setting: Stream terraces; eskers; outwash plains
Position on the landform: Shoulders and backslopes
Slope range: 12 to 30 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: 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: 0.3 percent
Typical profile:
Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 2 inches; loamy sand
Bw—2 to 25 inches; sand
C—25 to 80 inches; sand

430A—Freya loamy fine sand, 0 to 3 percent slopes

Component Description

Freya and similar soils
Extent: 50 to 90 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Footslopes
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: Sandy lacustrine deposits over clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 5.2 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 11 inches; loamy fine sand
Bw—11 to 32 inches; fine sand
Bt—32 to 47 inches; loamy fine sand
2Btg1,2Btg2—47 to 66 inches; clay

2Btkg—66 to 72 inches; clay
2Cg—72 to 80 inches; clay

439B—Graycalm-Menahga complex, 0 to 6 percent slopes

Component Description

Graycalm and similar soils
Extent: 40 to 80 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Summits
Slope range: 0 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.9 inches
Content of organic matter in the upper 10 inches: 0.6 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 22 inches; sand
E—22 to 35 inches; sand
E&Bt—35 to 60 inches; stratified sand to loamy sand

Menahga and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Summits
Slope range: 0 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: Sandy outwash
Flooding: None
Depth to wet zone: 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: 0.3 percent
Typical profile:
Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 2 inches; loamy sand
Bw—2 to 25 inches; sand
C—25 to 80 inches; sand

439C—Graycalm-Menahga complex, 6 to 12 percent slopes

Component Description

Graycalm and similar soils
Extent: 40 to 80 percent of the mapped areas
Geomorphic setting: Outwash plains

Position on the landform: Shoulders 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: Somewhat excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.9 inches
Content of organic matter in the upper 10 inches: 0.6 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 22 inches; sand
E—22 to 35 inches; sand
E&Bt—35 to 60 inches; stratified sand to loamy sand

Menahga and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Backslopes 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: Sandy outwash
Flooding: None
Depth to wet zone: 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: 0.3 percent
Typical profile:
Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 2 inches; loamy sand
B—2 to 25 inches; sand
C—25 to 80 inches; sand

439D—Graycalm-Menahga complex, 12 to 30 percent slopes

Component Description

Graycalm and similar soils
Extent: 40 to 80 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Shoulders and backslopes
Slope range: 12 to 30 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.9 inches

Content of organic matter in the upper 10 inches: 0.6 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 22 inches; sand
E—22 to 35 inches; sand
E&Bt—35 to 60 inches; stratified sand to loamy sand

Menahga and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Backslopes and shoulders
Slope range: 12 to 30 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: 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: 0.3 percent
Typical profile:
Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 2 inches; loamy sand
Bw—2 to 25 inches; sand
C—25 to 80 inches; sand

442C—Haugen, very stony-Greenwood complex, 0 to 15 percent slopes

Component Description

Haugen and similar soils
Extent: 30 to 80 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 2 to 15 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (March, April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 4 inches; sandy loam
Bw1—4 to 15 inches; sandy loam
Bw2—15 to 23 inches; gravelly sandy loam
E/B—23 to 35 inches; gravelly sandy loam
B/E—35 to 49 inches; sandy loam

Bt—49 to 79 inches; gravelly sandy loam
Cd—79 to 80 inches; gravelly sandy loam

Greenwood and similar soils
Extent: 15 to 35 percent of the mapped areas
Geomorphic setting: Depressions on disintegration moraines
Slope range: 0 to 2 percent
Texture of the surface layer: Peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic deposits more than 51 inches thick
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 1.0 foot (January, February)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 30.5 inches
Content of organic matter in the upper 10 inches: 65.0 percent
Typical profile:
Oi—0 to 6 inches; peat
Oe—6 to 60 inches; mucky peat

443D—Amery, very stony-Greenwood complex, 0 to 35 percent slopes

Component Description

Amery and similar soils
Extent: 30 to 60 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders and backslopes
Slope range: 15 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw—3 to 22 inches; sandy loam
E/B—22 to 34 inches; sandy loam
B/E—34 to 41 inches; gravelly sandy loam
Bt1—41 to 57 inches; gravelly sandy loam
Bt2—57 to 71 inches; sandy loam
Cd—71 to 80 inches; sandy loam

Greenwood and similar soils
Extent: 15 to 40 percent of the mapped areas
Geomorphic setting: Depressions on disintegration moraines
Slope range: 0 to 2 percent

Texture of the surface layer: Peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic deposits more than 51 inches thick
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 1.0 foot (January, February)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 30.5 inches
Content of organic matter in the upper 10 inches: 65.0 percent
Typical profile:
Oi—0 to 6 inches; peat
Oe—6 to 60 inches; mucky peat

459A—Loxley, Daisybay, and Dawson soils, 0 to 1 percent slopes

Component Description

Loxley and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains
Slope range: 0 to 1 percent
Texture of the surface layer: Mucky peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Herbaceous organic material more than 51 inches thick
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 1.0 foot (January, February)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 26.5 inches
Content of organic matter in the upper 10 inches: 80.0 percent
Typical profile:
Oe—0 to 13 inches; mucky peat
Oa—13 to 60 inches; muck

Daisybay and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains
Slope range: 0 to 1 percent
Texture of the surface layer: Peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Herbaceous organic material 16 to 51 inches thick over clayey deposits
Flooding: None
Wet zone: At the surface all year

Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 13.5 inches
Content of organic matter in the upper 10 inches: 74.5 percent
Typical profile:
Oi—0 to 7 inches; peat
Oe—7 to 30 inches; mucky peat
Oa—30 to 35 inches; muck
Cg—35 to 80 inches; clay

Dawson and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains
Slope range: 0 to 1 percent
Texture of the surface layer: Peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Herbaceous organic material 16 to 51 inches thick over sandy deposits
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 0.5 foot (January, February, March, July, August, September, December)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 18.2 inches
Content of organic matter in the upper 10 inches: 75.0 percent
Typical profile:
Oi—0 to 8 inches; peat
Oa—8 to 38 inches; muck
A—38 to 40 inches; silt loam
2C—40 to 60 inches; sand

461A—Bowstring muck, 0 to 1 percent slopes, frequently flooded

Component Description

Bowstring and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Flood plains
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: Highly decomposed organic material that has thin layers of sandy or loamy material
Lowest frequency of flooding (if it occurs): Rare (January, February, July, August, December)
Highest frequency of flooding: Frequent (April, May)

Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, December
Deepest ponding: 0.5 foot (April, May, November)
Available water capacity to a depth of 60 inches: 21.1 inches
Content of organic matter in the upper 10 inches: 80.0 percent
Typical profile:
Oa—0 to 38 inches; muck
Cg—38 to 47 inches; fine sand
O´a—47 to 80 inches; muck

465A—Newson-Meehan complex, 0 to 3 percent slopes

Component Description

Newson and similar soils
Extent: 30 to 80 percent of the mapped areas
Geomorphic setting: Depressions on outwash plains
Slope range: 0 to 2 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Sandy eolian deposits
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 25.0 percent
Typical profile:
Oa—0 to 3 inches; muck
A—3 to 8 inches; loamy sand
Bg—8 to 16 inches; sand
BCg—16 to 22 inches; sand
C—22 to 60 inches; sand

Meehan and similar soils
Extent: 20 to 50 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Summits
Slope range: 1 to 3 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Sandy eolian deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4.0 feet (February, August)
Ponding: None

Available water capacity to a depth of 60 inches: 3.3 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 4 inches; sand
Bw—4 to 29 inches; sand
C—29 to 60 inches; sand

469E—Bigisland-Milaca complex, 15 to 45 percent slopes, very stony

Component Description

Bigisland and similar soils
Extent: 30 to 70 percent of the mapped areas
Geomorphic setting: Stream terraces
Position on the landform: Shoulders
Slope range: 15 to 45 percent
Texture of the surface layer: Cobbly loamy sand
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Somewhat excessively drained
Parent material: Sandy-skeletal alluvium over dense loamy till
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.8 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
A—0 to 3 inches; cobbly loamy sand
Bw—3 to 13 inches; very cobbly sand
Bt—13 to 25 inches; very gravelly loamy sand
B´w—25 to 47 inches; stratified gravelly sand to sand
B´t—47 to 56 inches; extremely gravelly loamy coarse sand
2Cd—56 to 80 inches; extremely gravelly coarse sandy loam

Milaca and similar soils
Extent: 30 to 60 percent of the mapped areas
Geomorphic setting: Stream terraces
Position on the landform: Backslopes and shoulders
Slope range: 15 to 45 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Loamy deposits over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 6.8 inches
Content of organic matter in the upper 10 inches: 1.8 percent
Typical profile:
A—0 to 4 inches; sandy loam

E—4 to 13 inches; fine sandy loam
B/E—13 to 17 inches; sandy loam
Bt—17 to 43 inches; sandy loam
BCd—43 to 80 inches; sandy loam

471B—Dairyland-Emmert complex, 0 to 6 percent slopes, very stony

Component Description

Dairyland and similar soils
Extent: 50 to 80 percent of the mapped areas
Geomorphic setting: Stream terraces
Position on the landform: Summits
Slope range: 0 to 6 percent
Texture of the surface layer: Cobbly sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy-skeletal alluvium over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
Oe—0 to 1 inch; moderately decomposed plant material
A—1 to 7 inches; cobbly sandy loam
Bw—7 to 14 inches; very gravelly loamy sand
Bt1—14 to 36 inches; very gravelly loamy sand
Bt2—36 to 49 inches; extremely gravelly loamy sand
2Cd—49 to 80 inches; sandy loam

Emmert and similar soils
Extent: 20 to 50 percent of the mapped areas
Geomorphic setting: Stream terraces
Position on the landform: Summits
Slope range: 1 to 6 percent
Texture of the surface layer: Gravelly coarse sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy-skeletal outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 1.9 inches
Content of organic matter in the upper 10 inches: 0.2 percent
Typical profile:
A—0 to 1 inch; gravelly coarse sandy loam
Bw—1 to 5 inches; gravelly loamy coarse sand

BC—5 to 24 inches; very gravelly coarse sand
C—24 to 60 inches; very gravelly coarse sand

471C—Dairyland-Emmert complex, 6 to 15 percent slopes, very stony

Component Description

Dairyland and similar soils
Extent: 50 to 85 percent of the mapped areas
Geomorphic setting: Stream terraces
Position on the landform: Backslopes
Slope range: 6 to 15 percent
Texture of the surface layer: Very cobbly loamy sand
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy-skeletal alluvium over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
Oe—0 to 1 inch; moderately decomposed plant material
A—1 to 7 inches; very cobbly loamy sand
Bw—7 to 14 inches; very gravelly loamy sand
Bt1—14 to 36 inches; very gravelly loamy sand
Bt2—36 to 49 inches; extremely gravelly loamy sand
2Cd—49 to 80 inches; sandy loam

Emmert and similar soils
Extent: 10 to 35 percent of the mapped areas
Geomorphic setting: Stream terraces
Position on the landform: Backslopes
Slope range: 6 to 15 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy-skeletal outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 1.9 inches
Content of organic matter in the upper 10 inches: 0.2 percent
Typical profile:
A—0 to 1 inch; loamy sand
Bw—1 to 5 inches; gravelly loamy coarse sand
BC—5 to 24 inches; very gravelly coarse sand
C—24 to 60 inches; very gravelly coarse sand

472A—Rockmarsh-Clemens complex, 0 to 2 percent slopes, very stony, frequently flooded

Component Description

Rockmarsh and similar soils
Extent: 40 to 70 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 0 to 2 percent
Texture of the surface layer: Cobbly mucky peat
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Somewhat poorly drained
Parent material: Loamy-skeletal alluvium over dense loamy till
Lowest frequency of flooding (if it occurs): Rare (January, February, December)
Highest frequency of flooding: Frequent (April)
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 10.1 percent
Typical profile:
Oe—0 to 1 inch; cobbly mucky peat
A—1 to 8 inches; very cobbly silt loam
2Bw—8 to 23 inches; extremely gravelly loamy coarse sand
3Bt—23 to 46 inches; extremely gravelly sandy clay loam
3Cd—46 to 80 inches; extremely cobbly sandy loam

Clemens and similar soils
Extent: 30 to 60 percent of the mapped areas
Geomorphic setting: Flood plains; stream terraces
Slope range: 0 to 2 percent
Texture of the surface layer: Extremely gravelly loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Loamy-skeletal alluvium over sandy-skeletal alluvium
Lowest frequency of flooding (if it occurs): Rare (January, February, December)
Highest frequency of flooding: Frequent (April)
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 3.0 feet (September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 5.2 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
Oa—0 to 2 inches; highly decomposed plant material
A—2 to 7 inches; extremely gravelly loam
Bw1—7 to 10 inches; very gravelly loam
Bw2—10 to 13 inches; very gravelly coarse sandy loam
Bt1—13 to 32 inches; very gravelly coarse sandy loam
Bt2—32 to 46 inches; extremely gravelly coarse sandy loam
2C—46 to 80 inches; extremely gravelly loamy coarse sand

473A—Dairyland-Skog complex, 0 to 3 percent slopes, very stony, rarely flooded

Component Description

Dairyland and similar soils
Extent: 40 to 60 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 0 to 3 percent
Texture of the surface layer: Cobbly sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy-skeletal alluvium over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 3.9 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
Oe—0 to 1 inch; moderately decomposed plant material
A—1 to 7 inches; cobbly sandy loam
Bw—7 to 14 inches; very gravelly loamy sand
Bt1—14 to 36 inches; very gravelly loamy sand
Bt2—36 to 49 inches; extremely gravelly loamy sand
2Cd—49 to 80 inches; sandy loam

Skog and similar soils
Extent: 25 to 50 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 0 to 3 percent
Texture of the surface layer: Gravelly sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Loamy alluvium over sandy-skeletal alluvium
Months in which flooding does not occur: January, February, March, May, June, July, August, September, October, November, December
Highest frequency of flooding: Rare (April)
Shallowest depth to wet zone: 2.5 feet (April)
Deepest depth to wet zone: 5.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
Oa—0 to 1 inch; highly decomposed plant material
A—1 to 6 inches; gravelly sandy loam
E—6 to 11 inches; gravelly sandy loam
Bt—11 to 27 inches; extremely gravelly loamy sand
BC—27 to 38 inches; extremely gravelly coarse sand
C—38 to 80 inches; extremely gravelly coarse sand

484A—Greenwood and Beseman soils, 0 to 1 percent slopes

Component Description

Greenwood and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on disintegration moraines
Slope range: 0 to 1 percent
Texture of the surface layer: Peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Organic deposits more than 51 inches thick
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 1.0 foot (January, February)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 30.5 inches
Content of organic matter in the upper 10 inches: 65.0 percent
Typical profile:
Oi—0 to 6 inches; peat
Oe—6 to 60 inches; mucky peat

Beseman and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on disintegration moraines
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: Herbaceous organic material 16 to 51 inches thick over loamy till
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 1.0 foot (January, February)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 18.2 inches
Content of organic matter in the upper 10 inches: 50.0 percent
Typical profile:
Oa—0 to 36 inches; muck
Cg—36 to 60 inches; silt loam

485C—Lupton and Tawas soils, seeped, 2 to 15 percent slopes

Component Description

Lupton and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Backslopes
Slope range: 2 to 15 percent

Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Herbaceous and woody organic material more than 51 inches thick
Flooding: None
Wet zone: At the surface all year
Ponding: None
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 55.0 percent
Typical profile:
Oa—0 to 65 inches; muck

Tawas and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Backslopes
Slope range: 2 to 15 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Herbaceous organic material 16 to 51 inches thick over sandy deposits
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 14.2 inches
Content of organic matter in the upper 10 inches: 55.0 percent
Typical profile:
Oa—0 to 31 inches; muck
Cg—31 to 60 inches; fine sand

495B—Karlsborg-Grettum-Perida complex, 1 to 6 percent slopes

Component Description

Karlsborg and similar soils
Extent: 30 to 60 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Summits
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: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw—9 to 28 inches; sand
2Bt—28 to 48 inches; clay
3C—48 to 80 inches; sand

Grettum and similar soils
Extent: 20 to 50 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Summits
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: Moderately well drained
Parent material: Sandy outwash or lacustrine deposits with lamellae
Flooding: None
Shallowest depth to wet zone: 4.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 32 inches; sand
E&Bt—32 to 75 inches; sand
C—75 to 80 inches; sand

Perida and similar soils
Extent: 15 to 40 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Summits
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: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 3.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw1,Bw2,Bw3—9 to 43 inches; sand
Bw4—43 to 45 inches; loamy sand
2Bt1—45 to 60 inches; clay
2Bt2—60 to 74 inches; silty clay
3C—74 to 80 inches; sand

495C—Karlsborg-Grettum-Perida complex, 6 to 12 percent slopes

Component Description

Karlsborg and similar soils
Extent: 25 to 60 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Backslopes 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: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw—9 to 28 inches; sand
2Bt—28 to 48 inches; clay
3C—48 to 80 inches; sand

Grettum and similar soils
Extent: 20 to 50 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Backslopes 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: Moderately well drained
Parent material: Sandy outwash or lacustrine deposits with lamellae
Flooding: None
Shallowest depth to wet zone: 4.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 32 inches; sand
E&Bt—32 to 75 inches; sand
C—75 to 80 inches; sand

Perida and similar soils
Extent: 15 to 40 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains

Position on the landform: Backslopes 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: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 3.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw1,Bw2,Bw3—9 to 43 inches; sand
Bw4—43 to 45 inches; loamy sand
2Bt1—45 to 60 inches; clay
2Bt2—60 to 74 inches; silty clay
3C—74 to 80 inches; sand

495D—Karlsborg-Grettum-Perida complex, 12 to 30 percent slopes

Component Description

Karlsborg and similar soils
Extent: 30 to 50 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Shoulders and backslopes
Slope range: 12 to 30 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: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw—9 to 28 inches; sand
2Bt—28 to 48 inches; clay
3C—48 to 80 inches; sand

Grettum and similar soils
Extent: 20 to 40 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Backslopes and shoulders

Slope range: 12 to 30 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: Sandy outwash or lacustrine deposits with lamellae
Flooding: None
Shallowest depth to wet zone: 4.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 32 inches; sand
E&Bt—32 to 75 inches; sand
C—75 to 80 inches; sand

Perida and similar soils
Extent: 10 to 40 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Backslopes and shoulders
Slope range: 12 to 30 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: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 3.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw1,Bw2,Bw3—9 to 43 inches; sand
Bw4—43 to 45 inches; loamy sand
2Bt1—45 to 60 inches; clay
2Bt2—60 to 74 inches; silty clay
3C—74 to 80 inches; sand

496B—Karlsborg loamy sand, 1 to 6 percent slopes

Component Description

Karlsborg and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Summits
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: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw—9 to 28 inches; sand
2Bt—28 to 48 inches; clay
3C—48 to 80 inches; sand

496C—Karlsborg loamy sand, 6 to 12 percent slopes

Component Description

Karlsborg and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Shoulders 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: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw—9 to 28 inches; sand
2Bt—28 to 48 inches; clay
3C—48 to 80 inches; sand

496D—Karlsborg loamy sand, 12 to 30 percent slopes

Component Description

Karlsborg and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Backslopes and shoulders
Slope range: 12 to 30 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: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw—9 to 28 inches; sand
2Bt—28 to 48 inches; clay
3C—48 to 80 inches; sand

497A—Meenon loamy sand, 0 to 3 percent slopes

Component Description

Meenon and similar soils
Extent: 60 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Footslopes
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: Somewhat poorly drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April, May)
Deepest depth to wet zone: More than 6.7 feet (July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw—9 to 28 inches; sand
2Btg—28 to 41 inches; clay
3C—41 to 80 inches; sand

521A—Dody muck, 0 to 2 percent slopes

Component Description

Dody and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Drainageways and depressions on lake plains
Slope range: 0 to 2 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: At the surface (March, April, May, November, December)
Deepest depth to wet zone: 2.5 feet (August, September)
Months in which ponding does not occur: January, February, March, June, July, August, September, December
Deepest ponding: 0.5 foot (April, May, October, November)
Available water capacity to a depth of 60 inches: 5.8 inches
Content of organic matter in the upper 10 inches: 11.5 percent
Typical profile:
Oa—0 to 3 inches; muck
Eg—3 to 9 inches; sand
Bw—9 to 20 inches; fine sand
Bg—20 to 23 inches; loamy sand
2Btg—23 to 47 inches; clay
3C1—47 to 58 inches; loamy sand
3C2—58 to 80 inches; sand

523A—Nokasippi muck, 0 to 1 percent slopes

Component Description

Nokasippi and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on moraines
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: 30 to 50 inches to dense material
Drainage class: Very poorly drained
Parent material: Sandy outwash over dense loamy till
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: More than 6.7 feet (August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, December
Deepest ponding: 0.5 foot (April, May, November)
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 43.6 percent
Typical profile:
Oa—0 to 6 inches; muck
Eg—6 to 15 inches; loamy sand
2E—15 to 22 inches; very fine sandy loam
2Btg—22 to 31 inches; sandy clay loam
3BC—31 to 45 inches; gravelly loamy coarse sand
4Cd—45 to 60 inches; cobbly sandy loam

529B—Perida sand, 0 to 4 percent slopes

Component Description

Perida and similar soils
Extent: 60 to 100 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Summits
Slope range: 0 to 4 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 3.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.6 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; sand
Bw1,Bw2,Bw3—9 to 43 inches; sand
Bw4—43 to 45 inches; sand
2Bt1—45 to 60 inches; clay
2Bt2—60 to 74 inches; silty clay
3C—74 to 80 inches; sand

531A—Stengel loamy sand, 0 to 3 percent slopes

Component Description

Stengel and similar soils
Extent: 60 to 90 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Footslopes
Slope range: 0 to 3 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: 16 to 24 inches to abrupt textural change
Drainage class: Somewhat poorly drained
Parent material: Sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April, May)
Deepest depth to wet zone: More than 6.7 feet (July, August, September)
Ponding: None
Available water capacity to a depth of 60 inches: 5.0 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
A—0 to 4 inches; loamy sand
Bw1—4 to 20 inches; loamy sand

Bw2—20 to 46 inches; sand
Bw3—46 to 50 inches; loamy sand
2Bt—50 to 76 inches; clay
3C—76 to 80 inches; sand

542B—Haugen, very stony-Haugen complex, 2 to 6 percent slopes

Component Description

Haugen, very stony, and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Footslopes and summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (March, April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 4 inches; sandy loam
Bw1—4 to 15 inches; sandy loam
Bw2—15 to 23 inches; gravelly sandy loam
E/B—23 to 35 inches; gravelly sandy loam
B/E—35 to 49 inches; sandy loam
Bt—49 to 79 inches; gravelly sandy loam
Cd—79 to 80 inches; gravelly sandy loam

Haugen and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Footslopes and summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (March, April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
Bw1—7 to 15 inches; sandy loam
Bw2—15 to 23 inches; gravelly sandy loam

E/B—23 to 35 inches; gravelly sandy loam
B/E—35 to 49 inches; sandy loam
Bt—49 to 79 inches; gravelly sandy loam
Cd—79 to 80 inches; gravelly sandy loam

542C—Haugen, very stony-Haugen complex, 6 to 12 percent slopes

Component Description

Haugen, very stony, and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (March, April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 4 inches; sandy loam
Bw1—4 to 15 inches; sandy loam
Bw2—15 to 23 inches; gravelly sandy loam
E/B—23 to 35 inches; gravelly sandy loam
B/E—35 to 49 inches; sandy loam
Bt—49 to 79 inches; gravelly sandy loam
Cd—79 to 80 inches; gravelly sandy loam

Haugen and similar soils
Extent: 5 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (March, April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
Bw1—7 to 15 inches; sandy loam
Bw2—15 to 23 inches; gravelly sandy loam

E/B—23 to 35 inches; gravelly sandy loam
B/E—35 to 49 inches; sandy loam
Bt—49 to 79 inches; gravelly sandy loam
Cd—79 to 80 inches; gravelly sandy loam

544F—Menahga and Mahtomedi soils, 30 to 45 percent slopes

Component Description

Menahga and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Shoulders and backslopes
Slope range: 30 to 45 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: 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: 0.3 percent
Typical profile:
Oi—0 to 1 inch; slightly decomposed plant material
A—1 to 2 inches; sand
Bw—2 to 25 inches; sand
C—25 to 80 inches; sand

Mahtomedi and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Stream terraces; outwash plains
Position on the landform: Backslopes and shoulders
Slope range: 30 to 45 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy outwash
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.7 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw1—8 to 15 inches; gravelly coarse sand
Bw2—15 to 30 inches; gravelly sand
C—30 to 60 inches; gravelly sand

553B—Branstad fine sandy loam, 2 to 6 percent slopes

Component Description

Branstad and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Summits
Slope range: 2 to 6 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: Loamy calcareous till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April, May)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 14 inches; fine sandy loam
E/B—14 to 20 inches; fine sandy loam
B/E—20 to 45 inches; sandy clay loam
Bt1—45 to 55 inches; sandy clay loam
Bt2—55 to 68 inches; fine sandy loam
Btk—68 to 80 inches; fine sandy loam

553C—Branstad fine sandy loam, 6 to 12 percent slopes

Component Description

Branstad and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 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: Loamy calcareous till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April, May)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 14 inches; fine sandy loam
E/B—14 to 20 inches; fine sandy loam
B/E—20 to 45 inches; sandy clay loam
Bt1—45 to 55 inches; sandy clay loam

Bt2—55 to 68 inches; fine sandy loam
Btk—68 to 80 inches; fine sandy loam

553D—Branstad fine sandy loam, 12 to 20 percent slopes

Component Description

Branstad and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Shoulders and backslopes
Slope range: 12 to 20 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: Loamy calcareous till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April, May)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
E—9 to 14 inches; fine sandy loam
E/B—14 to 20 inches; fine sandy loam
B/E—20 to 45 inches; sandy clay loam
Bt1—45 to 55 inches; sandy clay loam
Bt2—55 to 68 inches; fine sandy loam
Btk—68 to 80 inches; fine sandy loam

555A—Fordum silt loam, 0 to 2 percent slopes, frequently flooded

Component Description

Fordum and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Flood plains
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: Silty or loamy alluvium underlain by sandy and gravelly alluvium
Lowest frequency of flooding (if it occurs): Rare (January, February, July, August, December)
Highest frequency of flooding: Frequent (April, May)
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 7.2 inches

Content of organic matter in the upper 10 inches: 7.4 percent
Typical profile:
A—0 to 6 inches; silt loam
Cg1—6 to 18 inches; silt loam
Cg2—18 to 30 inches; fine sandy loam
2Cg—30 to 60 inches; sand

557B—Shawano fine sand, 0 to 6 percent slopes

Component Description

Shawano and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Summits
Slope range: 0 to 6 percent
Texture of the surface layer: Fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy eolian deposits
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 0.3 percent
Typical profile:
A—0 to 2 inches; fine sand
BA—2 to 4 inches; fine sand
Bw—4 to 26 inches; fine sand
C—26 to 60 inches; fine sand

557C—Shawano fine sand, 6 to 12 percent slopes

Component Description

Shawano and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: 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: Sandy eolian deposits
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 0.3 percent
Typical profile:
A—0 to 2 inches; fine sand
BA—2 to 4 inches; fine sand
Bw—4 to 26 inches; fine sand
C—26 to 60 inches; fine sand

557D—Shawano fine sand, 12 to 30 percent slopes

Component Description

Shawano and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Backslopes and shoulders
Slope range: 12 to 30 percent
Texture of the surface layer: Fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy eolian deposits
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 0.3 percent
Typical profile:
A—0 to 2 inches; fine sand
BA—2 to 4 inches; fine sand
Bw—4 to 26 inches; fine sand
C—26 to 60 inches; fine sand

586A—Chelmo sandy loam, 0 to 2 percent slopes

Component Description

Chelmo and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains and outwash plains
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: Clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 5.5 inches
Content of organic matter in the upper 10 inches: 2.3 percent
Typical profile:
Ap—0 to 9 inches; sandy loam
Btg—9 to 24 inches; clay
2Cg—24 to 34 inches; stratified loamy sand to sand to sandy loam
3C—34 to 80 inches; sand

600A—Haplosaprists and Psammaquents, 0 to 2 percent slopes

Component Description

Haplosaprists and similar soils
Extent: 0 to 100 percent of the mapped areas
Slope range: 0 to 1 percent
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet zone: At the surface all year
Ponding depth: 1.0 foot all year
General description: This component consists of areas where very poorly drained organic soils are altered for use as cranberry beds. The alterations include excavating the organic material, filling with sand, and constructing ditches and dikes.

Psammaquents and similar soils
Extent: 0 to 100 percent of the mapped areas
Slope range: 0 to 2 percent
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet zone: At the surface all year
Ponding depth: 1.0 foot all year
General description: This component consists of areas where poorly drained and very poorly drained sandy soils are altered for use as cranberry beds. The alterations include land leveling and constructing ditches and dikes.

615B—Cress sandy loam, 0 to 6 percent slopes

Component Description

Cress and similar soils
Extent: 55 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Summits
Slope range: 0 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: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

615C—Cress sandy loam, 6 to 12 percent slopes

Component Description

Cress and similar soils
Extent: 55 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Shoulders 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: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

615D—Cress sandy loam, 12 to 30 percent slopes

Component Description

Cress and similar soils
Extent: 55 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Backslopes and shoulders
Slope range: 12 to 30 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: Loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

620C—Lundeen-Haustrup-Rock outcrop complex, 2 to 12 percent slopes, very stony

Component Description

Lundeen and similar soils
Extent: 15 to 70 percent of the mapped areas
Geomorphic setting: Knobs
Position on the landform: Shoulders and backslopes
Slope range: 2 to 12 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Parent material: Eolian deposits over basalt bedrock
Flooding: None
Depth to wet zone: More than 2.5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
A1—0 to 3 inches; silt loam
A2—3 to 16 inches; silt loam
Bw—16 to 33 inches; silt loam
2R—33 to 80 inches; bedrock

Haustrup and similar soils
Extent: 10 to 50 percent of the mapped areas
Geomorphic setting: Knobs
Position on the landform: Backslopes and shoulders
Slope range: 2 to 12 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Parent material: Loess over basalt bedrock
Flooding: None
Depth to wet zone: More than 1.0 foot all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.7 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
A1—0 to 4 inches; silt loam
A2—4 to 16 inches; silt loam
2R—16 to 80 inches; bedrock

Rock outcrop
Extent: 15 to 30 percent of the mapped areas
Slope range: 2 to 12 percent

621A—Bjorkland peat, 0 to 2 percent slopes

Component Description

Bjorkland and similar soils
Extent: 60 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on lake plains

Slope range: 0 to 2 percent
Texture of the surface layer: Peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Sandy lacustrine deposits over clayey lacustrine deposits
Flooding: None
Wet zone: At the surface all year
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 48.5 percent
Typical profile:
Oi—0 to 2 inches; peat
Oa—2 to 8 inches; muck
A—8 to 14 inches; fine sand
Eg—14 to 25 inches; fine sand
Bt—25 to 34 inches; loamy fine sand
2Btg—34 to 38 inches; clay
2Bkg—38 to 80 inches; clay

623A—Capitola muck, 0 to 2 percent slopes, very stony

Component Description

Capitola and similar soils
Extent: 65 to 100 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on moraines
Slope range: 0 to 2 percent
Texture of the surface layer: Muck
Depth to restrictive feature: 20 to 40 inches to dense material
Drainage class: Very poorly drained
Parent material: Silty or loamy alluvium underlain by dense loamy till
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 7.5 inches
Content of organic matter in the upper 10 inches: 35.3 percent
Typical profile:
Oa—0 to 5 inches; muck
A—5 to 7 inches; silt loam
Bg—7 to 22 inches; silt loam
2Btg—22 to 33 inches; sandy loam
2Cd—33 to 60 inches; sandy loam

624A—Ossmer silt loam, 0 to 3 percent slopes

Component Description

Ossmer and similar soils
Extent: 70 to 100 percent of the mapped areas

Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Footslopes
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: Loess or silty alluvium underlain by sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.9 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 4 inches; silt loam
E—4 to 6 inches; silt loam
E/B—6 to 11 inches; silt loam
B/E—11 to 26 inches; silt loam
2Bt1—26 to 34 inches; loam
2Bt2—34 to 38 inches; sandy loam
3C—38 to 60 inches; stratified sand to very gravelly coarse sand

631A—Giese muck, 0 to 1 percent slopes, very stony

Component Description

Giese and similar soils
Extent: 80 to 95 percent of the mapped areas
Geomorphic setting: Depressions and drainageways on moraines
Slope range: 0 to 1 percent
Texture of the surface layer: Muck
Depth to restrictive feature: 40 to 80 inches to dense material
Drainage class: Very poorly drained
Parent material: Mostly silty alluvium or loamy alluvium over dense loamy till
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Months in which ponding does not occur: January, February, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 11.2 percent
Typical profile:
Oa—0 to 1 inch; muck
A—1 to 6 inches; silt loam
Eg—6 to 11 inches; silt loam
Bg1—11 to 24 inches; silt loam
Bg2—24 to 30 inches; loam
2Bw—30 to 36 inches; fine sandy loam
2BC—36 to 70 inches; fine sandy loam
2Cd—70 to 80 inches; fine sandy loam

632A—Aftad fine sandy loam, 0 to 2 percent slopes

Component Description

Aftad and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; stream terraces
Position on the landform: Summits
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: Mostly loamy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.3 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
E/B—10 to 29 inches; fine sandy loam
B/E—29 to 36 inches; fine sandy loam
Bt—36 to 41 inches; fine sandy loam
C—41 to 60 inches; stratified fine sand to silt

632B—Aftad fine sandy loam, 2 to 6 percent slopes

Component Description

Aftad and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; stream terraces
Position on the landform: Summits
Slope range: 2 to 6 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: Mostly loamy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.3 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
E/B—10 to 29 inches; fine sandy loam
B/E—29 to 36 inches; fine sandy loam
Bt—36 to 41 inches; fine sandy loam
C—41 to 60 inches; stratified fine sand to silt

632C—Aftad fine sandy loam, 6 to 12 percent slopes

Component Description

Aftad and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; stream terraces
Position on the landform: Shoulders and backslopes
Slope range: 6 to 12 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: Mostly loamy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 9.3 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap—0 to 10 inches; fine sandy loam
E/B—10 to 29 inches; fine sandy loam
B/E—29 to 36 inches; fine sandy loam
Bt—36 to 41 inches; fine sandy loam
C—41 to 60 inches; stratified fine sand to silt

634C—Drylanding-Beartree complex, 0 to 12 percent slopes, rocky

Component Description

Drylanding and similar soils
Extent: 45 to 95 percent of the mapped areas
Geomorphic setting: Strath terraces
Position on the landform: Shoulders and backslopes
Slope range: 2 to 12 percent
Texture of the surface layer: Channery silt loam
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Parent material: Loamy alluvium over mudstone bedrock
Flooding: None
Depth to wet zone: More than 1.0 foot all year
Ponding: None
Available water capacity to a depth of 60 inches: 1.4 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 4 inches; channery silt loam
Bw—4 to 12 inches; very channery silt loam
2R—12 to 80 inches; bedrock

Beartree and similar soils
Extent: 10 to 30 percent of the mapped areas
Geomorphic setting: Depressions on strath terraces
Slope range: 0 to 2 percent

Texture of the surface layer: Muck
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Very poorly drained
Parent material: Loamy alluvium over siltstone bedrock
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, October, November, December)
Deepest depth to wet zone: More than 1.5 feet (January, February, August, September)
Months in which ponding does not occur: January, February, June, July, August, September, November, December
Deepest ponding: 1.0 foot (March, April, May)
Available water capacity to a depth of 60 inches: 2.4 inches
Content of organic matter in the upper 10 inches: 12.8 percent
Typical profile:
Oa—0 to 1 inch; muck
A1—1 to 4 inches; channery silt loam
A2—4 to 16 inches; extremely channery silt loam
2R—16 to 80 inches; bedrock

Rock outcrop
Extent: 1 to 10 percent of the mapped areas
Slope range: 2 to 12 percent

635C—Drylanding-Beartree complex, 0 to 12 percent slopes, rocky, rarely flooded

Component Description

Drylanding and similar soils
Extent: 55 to 85 percent of the mapped areas
Geomorphic setting: Strath terraces
Position on the landform: Backslopes and shoulders
Slope range: 2 to 12 percent
Texture of the surface layer: Channery silt loam
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Parent material: Loamy alluvium over mudstone bedrock
Months in which flooding does not occur: January, February, June, July, August, September, October, November, December
Highest frequency of flooding: Rare (March, April, May)
Depth to wet zone: More than 1.0 foot all year
Ponding: None
Available water capacity to a depth of 60 inches: 1.4 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 4 inches; channery silt loam
Bw—4 to 12 inches; very channery silt loam
2R—12 to 80 inches; bedrock

Beartree and similar soils
Extent: 15 to 35 percent of the mapped areas
Geomorphic setting: Depressions on strath terraces
Slope range: 0 to 2 percent

Texture of the surface layer: Muck
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Very poorly drained
Parent material: Loamy alluvium over siltstone bedrock
Months in which flooding does not occur: January, February, July, August, September, October, November, December
Highest frequency of flooding: Rare (March, April, May, June)
Shallowest depth to wet zone: At the surface (April, May, October, November, December)
Deepest depth to wet zone: More than 1.5 feet (January, February, August, September)
Months in which ponding does not occur: January, February, June, July, August, September, November, December
Deepest ponding: 1.0 foot (March, April, May)
Available water capacity to a depth of 60 inches: 2.4 inches
Content of organic matter in the upper 10 inches: 12.8 percent
Typical profile:
Oa—0 to 1 inch; muck
A1—1 to 4 inches; channery silt loam
A2—4 to 16 inches; extremely channery silt loam
2R—16 to 80 inches; bedrock

Rock outcrop
Extent: 1 to 10 percent of the mapped areas
Slope range: 2 to 12 percent

648B—Sconsin silt loam, 1 to 6 percent slopes

Component Description

Sconsin and similar soils
Extent: 65 to 100 percent of the mapped areas
Geomorphic setting: Outwash terraces; stream terraces; outwash plains
Position on the landform: Summits
Slope range: 1 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 20 to 38 inches to dense material
Drainage class: Moderately well drained
Parent material: Loess or silty alluvium underlain by sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, May, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 7.9 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
A—0 to 4 inches; silt loam
E—4 to 5 inches; silt loam
Bw—5 to 10 inches; silt loam
E´—10 to 18 inches; silt loam
E/B—18 to 27 inches; silt loam
2B/E—27 to 34 inches; loam

2BCd—34 to 38 inches; sandy loam
3C—38 to 60 inches; stratified sand to very gravelly coarse sand

669D—Fremstadt, stony-Pomroy complex, 15 to 30 percent slopes

Component Description

Fremstadt, stony, and similar soils
Extent: 20 to 80 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Shoulders and backslopes
Slope range: 15 to 30 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Sandy till or sandy mudflow sediments
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 5 inches; loamy sand
Bw—5 to 33 inches; loamy sand
B/E1—33 to 37 inches; sandy loam
B/E2—37 to 45 inches; loamy sand
BC—45 to 70 inches; loamy sand
C—70 to 80 inches; loamy sand

Pomroy and similar soils
Extent: 20 to 60 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Backslopes and shoulders
Slope range: 15 to 30 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy outwash over loamy till over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 0.4 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 30 inches; loamy sand
2Bt—30 to 45 inches; sandy loam
2BCd—45 to 80 inches; sandy loam

671B—Spoonerhill, stony-Spoonerhill complex, 2 to 6 percent slopes

Component Description

Spoonerhill, stony, and similar soils
Extent: 5 to 95 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: 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: Moderately well drained
Parent material: Thin mantle of loamy alluvium and sandy alluvium underlain by sandy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 12 inches; gravelly sandy loam
2Bw2—12 to 16 inches; gravelly loamy sand
2E/B—16 to 34 inches; loamy sand
2C1—34 to 46 inches; sand
2C2—46 to 80 inches; gravelly loamy sand

Spoonerhill and similar soils
Extent: 5 to 95 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: 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: Moderately well drained
Parent material: Thin mantle of loamy alluvium and sandy alluvium underlain by sandy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 12 inches; gravelly sandy loam
2Bw2—12 to 16 inches; gravelly loamy sand
2E/B—16 to 34 inches; loamy sand

2C1—34 to 46 inches; sand
2C2—46 to 80 inches; gravelly loamy sand

706A—Winterfield-Totagatic complex, 0 to 2 percent slopes, frequently flooded

Component Description

Winterfield and similar soils
Extent: 50 to 80 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 1 to 2 percent
Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Sandy alluvium
Lowest frequency of flooding (if it occurs): Rare (January, February, December)
Highest frequency of flooding: Frequent (April)
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 3.0 feet (September, October)
Ponding: None
Available water capacity to a depth of 60 inches: 5.0 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
A—0 to 7 inches; very fine sandy loam
C—7 to 60 inches; sand

Totagatic and similar soils
Extent: 15 to 40 percent of the mapped areas
Geomorphic setting: Flood plains
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: Mostly sandy alluvium
Lowest frequency of flooding (if it occurs): Rare (January, February, July, August, December)
Highest frequency of flooding: Frequent (April, May)
Shallowest depth to wet zone: At the surface (May, November, December)
Deepest depth to wet zone: More than 6.7 feet (April)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 4 inches; fine sandy loam
Bw1—4 to 8 inches; loamy fine sand
Bw2—8 to 17 inches; fine sand
Cg1—17 to 28 inches; fine sand
Cg2—28 to 46 inches; sand
C—46 to 70 inches; sand
C´g—70 to 80 inches; sand

715A—Mora silt loam, 0 to 3 percent slopes, very stony

Component Description

Mora and similar soils
Extent: 60 to 95 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Footslopes
Slope range: 0 to 3 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Somewhat poorly drained
Parent material: Loamy deposits over dense loamy till
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
A—0 to 4 inches; silt loam
E—4 to 9 inches; fine sandy loam
B/E—9 to 14 inches; sandy loam
Bt—14 to 36 inches; sandy loam
BC—36 to 46 inches; sandy loam
BCd—46 to 80 inches; sandy loam

717B—Milaca silt loam, 3 to 6 percent slopes, very stony

Component Description

Milaca and similar soils
Extent: 70 to 95 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Footslopes and summits
Slope range: 3 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Loamy deposits over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 7.1 inches
Content of organic matter in the upper 10 inches: 1.8 percent
Typical profile:
A—0 to 4 inches; silt loam
E—4 to 13 inches; fine sandy loam
B/E—13 to 17 inches; sandy loam
Bt—17 to 43 inches; sandy loam
BCd—43 to 80 inches; sandy loam

717C—Milaca silt loam, 6 to 12 percent slopes, very stony

Component Description

Milaca and similar soils
Extent: 70 to 90 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Loamy deposits over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 7.1 inches
Content of organic matter in the upper 10 inches: 1.8 percent
Typical profile:
A—0 to 4 inches; silt loam
E—4 to 13 inches; fine sandy loam
B/E—13 to 17 inches; sandy loam
Bt—17 to 43 inches; sandy loam
BCd—43 to 80 inches; sandy loam

720F—Haustrup-Lundeen-Rock outcrop complex, 12 to 65 percent slopes, very stony

Component Description

Haustrup and similar soils
Extent: 40 to 70 percent of the mapped areas
Geomorphic setting: Knobs
Position on the landform: Shoulders and backslopes
Slope range: 12 to 25 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Parent material: Loess over basalt bedrock
Flooding: None
Depth to wet zone: More than 1.0 foot all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.7 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
A1—0 to 4 inches; silt loam
A2—4 to 16 inches; silt loam
2R—16 to 80 inches; bedrock

Lundeen and similar soils
Extent: 15 to 40 percent of the mapped areas
Geomorphic setting: Knobs
Position on the landform: Shoulders and backslopes
Slope range: 12 to 25 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Parent material: Eolian deposits over basalt bedrock
Flooding: None
Depth to wet zone: More than 2.5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
A1—0 to 3 inches; silt loam
A2—3 to 16 inches; silt loam
Bw—16 to 33 inches; silt loam
2R—33 to 80 inches; bedrock

Rock outcrop
Extent: 15 to 35 percent of the mapped areas
Slope range: 12 to 65 percent

726B—Sissabagama loamy sand, 0 to 6 percent slopes

Component Description

Sissabagama and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Summits
Slope range: 0 to 6 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: Sandy deposits underlain by stratified sandy and loamy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 5.7 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
Ap—0 to 10 inches; loamy sand
Bw—10 to 31 inches; sand
E&Bt—31 to 45 inches; sand
2C—45 to 80 inches; stratified very fine sand to silt

742B—Milaca sandy loam, 2 to 6 percent slopes, very stony

Component Description

Milaca and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Summits
Slope range: 2 to 6 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Loamy deposits over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 6.8 inches
Content of organic matter in the upper 10 inches: 1.8 percent
Typical profile:
A—0 to 4 inches; sandy loam
E—4 to 13 inches; fine sandy loam
B/E—13 to 17 inches; sandy loam
Bt—17 to 43 inches; sandy loam
BCd—43 to 80 inches; sandy loam

742C—Milaca sandy loam, 6 to 12 percent slopes, very stony

Component Description

Milaca and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Loamy deposits over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 6.8 inches
Content of organic matter in the upper 10 inches: 1.8 percent
Typical profile:
A—0 to 4 inches; sandy loam
E—4 to 13 inches; fine sandy loam
B/E—13 to 17 inches; sandy loam

Bt—17 to 43 inches; sandy loam
BCd—43 to 80 inches; sandy loam

742D—Milaca sandy loam, 12 to 20 percent slopes, very stony

Component Description

Milaca and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Backslopes and shoulders
Slope range: 12 to 20 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Loamy deposits over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 6.8 inches
Content of organic matter in the upper 10 inches: 1.8 percent
Typical profile:
A—0 to 4 inches; sandy loam
E—4 to 13 inches; fine sandy loam
B/E—13 to 17 inches; sandy loam
Bt—17 to 43 inches; sandy loam
BCd—43 to 80 inches; sandy loam

755A—Moppet, occasionally flooded-Fordum, frequently flooded, complex, 0 to 3 percent slopes

Component Description

Moppet and similar soils
Extent: 35 to 75 percent of the mapped areas
Geomorphic setting: Flood plains
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: Moderately well drained
Parent material: Loamy alluvium underlain by sandy and gravelly alluvium
Lowest frequency of flooding (if it occurs): Very rare (January, February, July, August, December)
Highest frequency of flooding: Occasional (April, May)
Shallowest depth to wet zone: 2.5 feet (April)
Deepest depth to wet zone: 4.5 feet (August)
Ponding: None
Available water capacity to a depth of 60 inches: 8.6 inches
Content of organic matter in the upper 10 inches: 1.4 percent

Typical profile:
A—0 to 4 inches; fine sandy loam
E—4 to 10 inches; fine sandy loam
Bw—10 to 39 inches; fine sandy loam
2C—39 to 60 inches; gravelly sand

Fordum and similar soils
Extent: 25 to 65 percent of the mapped areas
Geomorphic setting: Flood plains
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: Silty or loamy alluvium underlain by sandy and gravelly alluvium
Lowest frequency of flooding (if it occurs): Rare (January, February, July, August, December)
Highest frequency of flooding: Frequent (April, May)
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 7.4 percent
Typical profile:
A—0 to 6 inches; silt loam
Cg1—6 to 18 inches; silt loam
Cg2—18 to 30 inches; fine sandy loam
2Cg—30 to 60 inches; sand

771A—Lenroot loamy sand, 0 to 3 percent slopes

Component Description

Lenroot and similar soils
Extent: 75 to 95 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Footslopes
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: Sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: 5.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 2.8 inches
Content of organic matter in the upper 10 inches: 0.5 percent
Typical profile:
A—0 to 4 inches; loamy sand
Bw1—4 to 8 inches; loamy sand
Bw2—8 to 14 inches; loamy coarse sand

BC—14 to 21 inches; gravelly coarse sand
C—21 to 80 inches; stratified coarse sand to gravelly coarse sand

812B—Mora sandy loam, 0 to 4 percent slopes, very stony

Component Description

Mora and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Somewhat poorly drained
Parent material: Loamy deposits over dense loamy till
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.0 inches
Content of organic matter in the upper 10 inches: 1.7 percent
Typical profile:
A—0 to 4 inches; sandy loam
E—4 to 9 inches; fine sandy loam
B/E—9 to 14 inches; sandy loam
Bt—14 to 36 inches; sandy loam
BC—36 to 46 inches; sandy loam
BCd—46 to 80 inches; sandy loam

825A—Meehan sand, 0 to 2 percent slopes

Component Description

Meehan and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Footslopes
Slope range: 0 to 2 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Sandy lacustrine material or sandy outwash
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 3.3 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 4 inches; sand
Bw—4 to 29 inches; sand
C—29 to 60 inches; sand

896A—Wurtsmith sand, 0 to 3 percent slopes

Component Description

Wurtsmith and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Footslopes
Slope range: 0 to 3 percent
Texture of the surface layer: Sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Sandy lacustrine deposits or sandy outwash
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: 5.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 2.3 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 6 inches; sand
Bw—6 to 33 inches; sand
C—92 to 60 inches; sand

980A—Soderbeck very gravelly loam, 0 to 2 percent slopes, very stony, rarely flooded

Component Description

Soderbeck and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Flood plains
Slope range: 0 to 2 percent
Texture of the surface layer: Very gravelly loam
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Somewhat poorly drained
Parent material: Loamy-skeletal alluvium over sandy-skeletal alluvium over sandstone
Months in which flooding does not occur: January, February, March, May, June, July, August, September, October, November, December
Highest frequency of flooding: Rare (April)
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 3.7 inches
Content of organic matter in the upper 10 inches: 1.8 percent
Typical profile:
A—0 to 4 inches; very gravelly loam
Bt1—4 to 18 inches; extremely gravelly loam
Bt2—18 to 28 inches; extremely gravelly coarse sandy loam
2BC—28 to 42 inches; extremely gravelly coarse sand

3Cr—42 to 55 inches; bedrock
3R—55 to 80 inches; bedrock

1070C—Fremstadt, stony-Cress complex, 6 to 15 percent slopes

Component Description

Fremstadt and similar soils
Extent: 30 to 70 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 6 to 15 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Sandy till or sandy mudflow sediments
Flooding: None
Depth to wet zone: More than 6.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 5 inches; sandy loam
Bw—5 to 33 inches; loamy sand
B/E1—33 to 37 inches; sandy loam
B/E2—37 to 45 inches; loamy sand
BC—45 to 70 inches; loamy sand
C—70 to 80 inches; loamy sand

Cress and similar soils
Extent: 15 to 40 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Shoulders 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: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

1070D—Fremstadt, stony-Cress complex, 15 to 30 percent slopes

Component Description

Fremstadt and similar soils
Extent: 40 to 80 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 15 to 30 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Sandy till or sandy mudflow sediments
Flooding: None
Depth to wet zone: More than 6.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 5 inches; sandy loam
Bw—5 to 33 inches; loamy sand
B/E1—33 to 37 inches; sandy loam
B/E2—37 to 45 inches; loamy sand
BC—45 to 70 inches; loamy sand
C—70 to 80 inches; loamy sand

Cress and similar soils
Extent: 20 to 50 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Backslopes and shoulders
Slope range: 12 to 30 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: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

1080B—Spoonerhill-Spoonerhill, stony-Cress complex, 1 to 6 percent slopes

Component Description

Spoonerhill and similar soils
Extent: 5 to 80 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: 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: Moderately well drained
Parent material: Thin mantle of loamy alluvium and sandy alluvium underlain by sandy till or sandy mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 12 inches; gravelly sandy loam
2Bw2—12 to 16 inches; gravelly loamy sand
2E/B—16 to 34 inches; loamy sand
2C1—34 to 46 inches; sand
2C2—46 to 80 inches; gravelly loamy sand

Spoonerhill, stony, and similar soils
Extent: 5 to 80 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: 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: Moderately well drained
Parent material: Thin mantle of loamy alluvium and sandy alluvium underlain by sandy till or sandy mudflow sediments
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, March, June, July, August, September, October, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 12 inches; gravelly sandy loam
2Bw2—12 to 16 inches; gravelly loamy sand

2E/B—16 to 34 inches; loamy sand
2C1—34 to 46 inches; sand
2C2—46 to 80 inches; gravelly loamy sand

Cress and similar soils
Extent: 15 to 35 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: 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: Thin layer of loamy alluvium underlain by stratified sandy and gravelly outwash
Flooding: None
Depth to wet zone: 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: 0.9 percent
Typical profile:
A—0 to 3 inches; sandy loam
Bw1—3 to 15 inches; sandy loam
2Bw2—15 to 31 inches; loamy sand
2Bw3—31 to 36 inches; gravelly loamy sand
2C—36 to 60 inches; stratified sand to very gravelly coarse sand

2002—Udorthents, earthen dams

Component Description

Udorthents, earthen dams
Extent: 100 percent of the map unit
General description: Earthen dams generally consist of silty, loamy, and clayey soils. Service roads, spillways, very steep side slopes, dikes, levees, and small concrete or steel dam structures may be included in mapping. Because of the variability of this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

2015—Pits

Component Description

Pits
Extent: 100 percent of the map unit
Geomorphic setting: Stream terraces; outwash plains; moraines; eskers
Flooding: None
Ponding: None
General description: This map unit consists of open excavations from which sand, gravel, or loamy material has been removed. Most pits are in areas of glacial outwash, but some are in areas of till. Some pits are still in use. Others are no longer used and have been reclaimed or are covered with brush and weeds. Some pits contain water. Because of the variability of this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

2050—Landfill

Component Description

Landfill
Extent: 100 percent of the map unit
General description: This map unit occurs as an area of accumulated waste products of human habitation, which can be above or below natural ground level. Because of the variability of this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

3011A—Barronett silt loam, 0 to 2 percent slopes

Component Description

Barronett and similar soils
Extent: 75 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways on stream terraces
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: Mostly silty lacustrine deposits
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 5.5 feet (February)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6.1 percent
Typical profile:
Ap—0 to 9 inches; silt loam
Eg—9 to 16 inches; silt loam
Btg—16 to 34 inches; silt loam
Cg—34 to 60 inches; stratified silt loam to very fine sand

3082E—Braham-Shawano complex, 12 to 35 percent slopes

Component Description

Braham and similar soils
Extent: 40 to 70 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Shoulders and backslopes
Slope range: 12 to 30 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: Sandy eolian deposits over loamy calcareous till
Flooding: None

Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 8.3 inches
Content of organic matter in the upper 10 inches: 0.9 percent
Typical profile:
Ap—0 to 8 inches; loamy fine sand
E—8 to 28 inches; loamy sand
2Bt1—28 to 42 inches; clay loam
2Bt2—42 to 48 inches; loam
2Bk—48 to 80 inches; loam

Shawano and similar soils
Extent: 15 to 40 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Shoulders and backslopes
Slope range: 12 to 35 percent
Texture of the surface layer: Fine sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Excessively drained
Parent material: Sandy eolian deposits
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 0.3 percent
Typical profile:
A—0 to 2 inches; fine sand
BA—2 to 4 inches; fine sand
Bw—4 to 26 inches; fine sand
C—26 to 60 inches; fine sand

3114A—Saprists, Aquents, and Aquepts, 0 to 1 percent slopes, ponded, flooded

Component Description

Saprists and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Drainageways on lake plains, outwash plains, and moraines; depressions on outwash plains and moraines
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: Herbaceous or woody organic material 16 inches to more than 51 inches thick
Flooding: None
Wet zone: At the surface all year
Ponding depth: 1.6 feet all year
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 62.0 percent
Typical profile:
Oa—0 to 80 inches; muck

Aquents and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Drainageways on lake plains, outwash plains, and moraines; depressions on outwash plains and moraines
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: Sandy outwash, eolian, lacustrine, or till deposits
Flooding: None
Wet zone: At the surface all year
Ponding depth: 1.6 feet all year
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 25.0 percent
Typical profile:
Oa—0 to 3 inches; muck
A—3 to 8 inches; loamy sand
Bg—8 to 16 inches; sand
BCg—16 to 22 inches; sand
C—22 to 60 inches; sand

Aquepts and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Drainageways on lake plains, outwash plains, and moraines; depressions on outwash plains and moraines
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: Loamy outwash, lacustrine, till, or alluvial deposits
Flooding: None
Wet zone: At the surface all year
Ponding depth: 1.6 feet all year
Available water capacity to a depth of 60 inches: 6.2 inches
Content of organic matter in the upper 10 inches: 18.6 percent
Typical profile:
Oa—0 to 4 inches; muck
Eg—4 to 15 inches; silt loam
2Bg—15 to 28 inches; loam
3C—28 to 60 inches; stratified sand to very gravelly coarse sand

3125A—Meehan loamy sand, 0 to 2 percent slopes

Component Description

Meehan and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Footslopes
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: Sandy outwash

Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 3.5 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
A—0 to 5 inches; loamy sand
E—5 to 8 inches; sand
Bw—8 to 28 inches; sand
C—28 to 60 inches; sand

3126A—Wurtsmith loamy sand, 0 to 3 percent slopes

Component Description

Wurtsmith and similar soils
Extent: 65 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains
Position on the landform: Footslopes
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: Sandy outwash
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: 5.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 3.8 inches
Content of organic matter in the upper 10 inches: 3.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw—9 to 37 inches; coarse sand
C—37 to 60 inches; sand

3312B—Glendenning, very stony-Glendenning complex, 0 to 4 percent slopes

Component Description

Glendenning, very stony, and similar soils
Extent: 20 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Somewhat poorly drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None

Available water capacity to a depth of 60 inches: 7.8 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
A—0 to 5 inches; sandy loam
E—5 to 15 inches; sandy loam
E/B—15 to 20 inches; sandy loam
B/E—20 to 26 inches; sandy loam
Bt1—26 to 40 inches; sandy loam
Bt2—40 to 65 inches; sandy loam
Cd—65 to 80 inches; sandy loam

Glendenning and similar soils
Extent: 15 to 75 percent of the mapped areas
Geomorphic setting: Disintegration moraines
Position on the landform: Footslopes
Slope range: 0 to 4 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 60 to 80 inches to dense material
Drainage class: Somewhat poorly drained
Parent material: Sandy loam till or mudflow sediments
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (July, August)
Ponding: None
Available water capacity to a depth of 60 inches: 7.8 inches
Content of organic matter in the upper 10 inches: 1.3 percent
Typical profile:
Ap—0 to 7 inches; sandy loam
E—7 to 15 inches; sandy loam
E/B—15 to 20 inches; sandy loam
B/E—20 to 26 inches; sandy loam
Bt1—26 to 40 inches; sandy loam
Bt2—40 to 65 inches; sandy loam
Cd—65 to 80 inches; sandy loam

3336A—Fenander fine sandy loam, 0 to 2 percent slopes

Component Description

Fenander and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Depressions on lake plains; drainageways on stream terraces
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: Stratified loamy and sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: At the surface (March, April, May, June, October, November)
Deepest depth to wet zone: 5.5 feet (February)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 2.4 percent
Typical profile:
Ap—0 to 9 inches; fine sandy loam
Eg—9 to 15 inches; fine sandy loam
Btg—15 to 27 inches; loam
BC—27 to 33 inches; fine sandy loam
C—33 to 80 inches; stratified loamy fine sand to fine sandy loam

3403A—Loxley, Beseman, and Dawson soils, 0 to 1 percent slopes

Component Description

Loxley and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on disintegration moraines
Slope range: 0 to 1 percent
Texture of the surface layer: Mucky peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Herbaceous organic material more than 51 inches thick
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 1.0 foot (January, February)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 26.5 inches
Content of organic matter in the upper 10 inches: 80.0 percent
Typical profile:
Oe—0 to 13 inches; mucky peat
Oa—13 to 60 inches; muck

Beseman and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on disintegration moraines
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: Herbaceous organic material 16 to 51 inches thick over loamy till
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 1.0 foot (January, February)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 18.2 inches
Content of organic matter in the upper 10 inches: 50.0 percent
Typical profile:
Oa—0 to 36 inches; muck
Cg—36 to 60 inches; loam

Dawson and similar soils
Extent: 0 to 100 percent of the mapped areas
Geomorphic setting: Depressions on disintegration moraines
Slope range: 0 to 1 percent
Texture of the surface layer: Peat
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Sphagnum moss and herbaceous organic material 16 to 51 inches thick over sandy or sandy and gravelly deposits
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, June, October, November)
Deepest depth to wet zone: 0.5 foot (January, February, March, July, August, September, December)
Months in which ponding does not occur: January, February, March, May, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April)
Available water capacity to a depth of 60 inches: 18.2 inches
Content of organic matter in the upper 10 inches: 75.0 percent
Typical profile:
Oi—0 to 8 inches; peat
Oa—8 to 38 inches; muck
A—38 to 40 inches; silt loam
2C—40 to 60 inches; sand

3429B—Lara loamy fine sand, 0 to 6 percent slopes

Component Description

Lara and similar soils
Extent: 60 to 90 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Summits
Slope range: 0 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: Sandy lacustrine over clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 10 inches; loamy fine sand
Bw—10 to 35 inches; fine sand
Bt—35 to 42 inches; loamy fine sand
2Btg—42 to 55 inches; clay
2Bt1—55 to 75 inches; clay
2Bt2—75 to 80 inches; silty clay

3429C—Lara loamy fine sand, 6 to 12 percent slopes

Component Description

Lara and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Shoulders 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: Moderately well drained
Parent material: Sandy lacustrine over clayey lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 1.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
Ap—0 to 10 inches; loamy fine sand
Bw—10 to 35 inches; fine sand
Bt—35 to 42 inches; loamy fine sand
2Btg—42 to 55 inches; clay
2Bt1—55 to 75 inches; clay
2Bt2—75 to 80 inches; silty clay

3446A—Newson muck, 0 to 2 percent slopes

Component Description

Newson and similar soils
Extent: 65 to 100 percent of the mapped areas
Geomorphic setting: Drainageways and depressions on outwash plains and lake plains
Slope range: 0 to 2 percent
Texture of the surface layer: Muck
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Very poorly drained
Parent material: Sandy outwash or sandy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: At the surface (April, May, November)
Deepest depth to wet zone: 2.5 feet (February, August)
Months in which ponding does not occur: January, February, March, June, July, August, September, October, November, December
Deepest ponding: 0.5 foot (April, May)
Available water capacity to a depth of 60 inches: 5.6 inches
Content of organic matter in the upper 10 inches: 25.0 percent
Typical profile:
Oa—0 to 3 inches; muck
A—3 to 8 inches; loamy sand
Bg—8 to 16 inches; sand

BCg—16 to 22 inches; sand
C—22 to 60 inches; sand

3448B—Grettum loamy sand, 0 to 6 percent slopes

Component Description

Grettum and similar soils
Extent: 60 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Summits
Slope range: 0 to 6 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: Sandy outwash or sandy lacustrine deposits with lamellae
Flooding: None
Shallowest depth to wet zone: 4.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 32 inches; sand
E&Bt—32 to 75 inches; sand
C—75 to 80 inches; sand

3448C—Grettum loamy sand, 6 to 12 percent slopes

Component Description

Grettum and similar soils
Extent: 65 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Shoulders 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: Moderately well drained
Parent material: Sandy outwash or sandy lacustrine deposits with lamellae
Flooding: None
Shallowest depth to wet zone: 4.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 32 inches; sand

E&Bt—32 to 75 inches; sand
C—75 to 80 inches; sand

3510B—Pomroy-Fremstadt-Fremstadt, stony, complex, 1 to 6 percent slopes

Component Description

Pomroy and similar soils
Extent: 5 to 95 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Summits
Slope range: 2 to 6 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy outwash over loamy till over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 0.4 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 30 inches; loamy sand
2Bt—30 to 45 inches; sandy loam
2BCd—45 to 80 inches; sandy loam

Fremstadt and similar soils
Extent: 5 to 95 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Summits
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: Well drained
Parent material: Sandy till or sandy mudflow sediments
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 5 inches; loamy sand
Bw—5 to 33 inches; loamy sand
B/E1—33 to 37 inches; sandy loam
B/E2—37 to 45 inches; loamy sand
BC—45 to 70 inches; loamy sand
C—70 to 80 inches; loamy sand

Fremstadt, stony, and similar soils
Extent: 5 to 95 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Summits
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: Well drained
Parent material: Sandy till or sandy mudflow sediments
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 5 inches; loamy sand
Bw—5 to 33 inches; loamy sand
B/E1—33 to 37 inches; sandy loam
B/E2—37 to 45 inches; loamy sand
BC—45 to 70 inches; loamy sand
C—70 to 80 inches; loamy sand

3510C—Pomroy-Fremstadt-Fremstadt, stony, complex, 6 to 15 percent slopes

Component Description

Pomroy and similar soils
Extent: 5 to 95 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 15 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Moderately well drained
Parent material: Sandy outwash over loamy till over dense loamy till
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 0.4 percent
Typical profile:
A—0 to 3 inches; loamy sand
Bw—3 to 30 inches; loamy sand
2Bt—30 to 45 inches; sandy loam
2BCd—45 to 80 inches; sandy loam

Fremstadt and similar soils
Extent: 5 to 95 percent of the mapped areas
Geomorphic setting: Moraines

Position on the landform: Shoulders and backslopes
Slope range: 6 to 15 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Sandy till or sandy mudflow sediments
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 5 inches; loamy sand
Bw—5 to 33 inches; loamy sand
B/E1—33 to 37 inches; sandy loam
B/E2—37 to 45 inches; loamy sand
BC—45 to 70 inches; loamy sand
C—70 to 80 inches; loamy sand

Fremstadt, stony, and similar soils
Extent: 5 to 95 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Shoulders and backslopes
Slope range: 6 to 15 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Well drained
Parent material: Sandy till or sandy mudflow sediments
Flooding: None
Depth to wet zone: More than 6.7 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
A—0 to 5 inches; loamy sand
Bw—5 to 33 inches; loamy sand
B/E1—33 to 37 inches; sandy loam
B/E2—37 to 45 inches; loamy sand
BC—45 to 70 inches; loamy sand
C—70 to 80 inches; loamy sand

3511A—Bushville loamy sand, 0 to 3 percent slopes

Component Description

Bushville and similar soils
Extent: 85 to 100 percent of the mapped areas
Geomorphic setting: Moraines
Position on the landform: Footslopes
Slope range: 0 to 3 percent
Texture of the surface layer: Loamy sand
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Somewhat poorly drained

Parent material: Mantle of sandy outwash over dense loamy till
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: More than 6.7 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 5.2 inches
Content of organic matter in the upper 10 inches: 0.4 percent
Typical profile:
A—0 to 4 inches; loamy sand
E—4 to 21 inches; loamy sand
2Bw—21 to 24 inches; fine sandy loam
2Bt1—24 to 30 inches; fine sandy loam
2Bt2—30 to 45 inches; sandy loam
2BCd—45 to 60 inches; sandy loam

3516A—Slimlake sandy loam, 0 to 3 percent slopes

Component Description

Slimlake and similar soils
Extent: 55 to 100 percent of the mapped areas
Geomorphic setting: Outwash plains; stream terraces
Position on the landform: Footslopes
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: Moderately well drained
Parent material: Loamy alluvium over stratified sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: 2.5 feet (April)
Deepest depth to wet zone: 5.5 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 4.3 inches
Content of organic matter in the upper 10 inches: 1.3 percent
Typical profile:
A—0 to 6 inches; sandy loam
Bw—6 to 17 inches; sandy loam
2BC—17 to 42 inches; gravelly sand
2C1—42 to 53 inches; gravelly sand
2C2—53 to 80 inches; sand

3625A—Lino loamy fine sand, 0 to 2 percent slopes

Component Description

Lino and similar soils
Extent: 75 to 95 percent of the mapped areas
Geomorphic setting: Outwash plains; lake plains
Position on the landform: Summits and footslopes
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: Sandy outwash or eolian deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 1.0 percent
Typical profile:
Ap—0 to 7 inches; loamy fine sand
Bw—7 to 45 inches; fine sand
C—45 to 60 inches; fine sand

3626A—Crex loamy fine sand, 0 to 3 percent slopes

Component Description

Crex and similar soils
Extent: 80 to 100 percent of the mapped areas
Geomorphic setting: Lake plains; outwash plains
Position on the landform: Footslopes and summits
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: Sandy outwash or eolian deposits
Flooding: None
Shallowest depth to wet zone: 2.0 feet (April)
Deepest depth to wet zone: 5.0 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 2.6 percent
Typical profile:
Oe—0 to 1 inch; moderately decomposed plant material
A—1 to 7 inches; loamy fine sand
Bw—7 to 40 inches; fine sand
C1—40 to 71 inches; fine sand
C2—71 to 80 inches; sand

3629B—Perida loamy sand, 0 to 4 percent slopes

Component Description

Perida and similar soils
Extent: 70 to 100 percent of the mapped areas
Geomorphic setting: Lake plains
Position on the landform: Summits
Slope range: 0 to 4 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: Mantle of sandy outwash or sandy lacustrine deposits over clayey lacustrine deposits underlain by sandy outwash or sandy lacustrine deposits

Flooding: None
Shallowest depth to wet zone: 3.5 feet (April)
Deepest depth to wet zone: More than 6.7 feet (January, February, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
Ap—0 to 9 inches; loamy sand
Bw1,Bw2,Bw3—9 to 43 inches; sand
Bw4—43 to 45 inches; loamy sand
2Bt1—45 to 60 inches; clay
2Bt2—60 to 74 inches; silty clay
3C—74 to 80 inches; sand

3636B—Plainbo sand, 2 to 6 percent slopes

Component Description

Plainbo and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Strath terraces
Position on the landform: Summits
Slope range: 1 to 6 percent
Texture of the surface layer: Sand
Depth to restrictive features: 20 to 40 inches to paralithic bedrock; 60 to 80 inches to lithic bedrock
Drainage class: Excessively drained
Parent material: Sandy outwash over residuum derived from sandstone
Flooding: None
Depth to wet zone: More than 2.5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.0 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 4 inches; sand
Bw1—4 to 13 inches; sand
Bw2—13 to 32 inches; gravelly sand
2Cr—32 to 75 inches; weathered bedrock
2R—75 to 80 inches; bedrock

3636C—Plainbo sand, 6 to 12 percent slopes

Component Description

Plainbo and similar soils
Extent: 90 to 100 percent of the mapped areas
Geomorphic setting: Strath terraces
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Sand
Depth to restrictive features: 20 to 40 inches to paralithic bedrock; 60 to 80 inches to lithic bedrock

Drainage class: Excessively drained
Parent material: Sandy outwash over residuum derived from sandstone
Flooding: None
Depth to wet zone: More than 2.5 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 2.0 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
A—0 to 4 inches; sand
Bw1—4 to 13 inches; sand
Bw2—13 to 32 inches; gravelly sand
2Cr—32 to 75 inches; weathered bedrock
2R—75 to 80 inches; bedrock

M-W—Miscellaneous water

- This map unit consists of manmade areas that are used for industrial, sanitary, or mining applications and that contain water most of the year. Included in mapping are narrow dikes that surround the water areas. Because of the variability of this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

W—Water

- This map unit consists of naturally occurring bodies of water, such as rivers, streams, lakes, reservoirs, and ponds.

Table 2.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
3A	Totagatic-Bowstring-Ausable complex, 0 to 2 percent slopes, frequently flooded	5,878	1.0
12A	Makwa stony muck, 0 to 1 percent slopes, extremely stony, frequently flooded	585	0.1
22A	Comstock silt loam, 0 to 3 percent slopes	124	*
27A	Scott Lake sandy loam, 0 to 3 percent slopes	769	0.1
28B	Haugen-Rosholt complex, 2 to 6 percent slopes, very stony	2,282	0.4
28C	Haugen-Rosholt complex, 6 to 12 percent slopes, very stony	3,345	0.6
38A	Rosholt sandy loam, 0 to 2 percent slopes	198	*
38B	Rosholt sandy loam, 2 to 6 percent slopes	1,080	0.2
38C	Rosholt sandy loam, 6 to 12 percent slopes	839	0.1
38D	Rosholt sandy loam, 12 to 20 percent slopes	184	*
42D	Amery sandy loam, 12 to 25 percent slopes, very stony	2,527	0.4
43B	Antigo silt loam, 1 to 6 percent slopes	212	*
43C	Antigo silt loam, 6 to 15 percent slopes	44	*
63A	Crystal Lake silt loam, 0 to 2 percent slopes	30	*
63B	Crystal Lake silt loam, 2 to 6 percent slopes	55	*
63C	Crystal Lake silt loam, 6 to 12 percent slopes	21	*
64A	Totagatic-Winterfield complex, 0 to 2 percent slopes, frequently flooded	3,287	0.6
69C	Keweenaw-Sayner-Vilas complex, 6 to 15 percent slopes, stony	526	*
69E	Keweenaw-Sayner-Vilas complex, 15 to 45 percent slopes, stony	685	0.1
82B	Cutaway-Branstad complex, 1 to 6 percent slopes	262	*
82C	Cutaway-Branstad complex, 6 to 12 percent slopes	325	*

See footnote at end of table.

Table 2.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
83A	Smestad loamy fine sand, 0 to 3 percent slopes	3,985	0.7
85B	Taylor loam, 2 to 6 percent slopes	559	*
85C	Taylor loam, 6 to 12 percent slopes	246	*
86A	Indus-Alango complex, 0 to 2 percent slopes	4,488	0.8
89A	Wildwood muck, 0 to 1 percent slopes	2,630	0.5
96B	Karlsborg sand, 1 to 6 percent slopes	2,336	0.4
96C	Karlsborg sand, 6 to 12 percent slopes	1,603	0.3
96D	Karlsborg sand, 12 to 20 percent slopes	1,299	0.2
100B	Menahga sand, 0 to 6 percent slopes	6,144	1.1
100C	Menahga sand, 6 to 12 percent slopes	6,267	1.1
100D	Menahga sand, 12 to 30 percent slopes	5,895	1.0
120B	Kost fine sand, 0 to 6 percent slopes	498	*
127D	Amery-Rosholt complex, 12 to 20 percent slopes, very stony	3,762	0.7
127E	Amery-Rosholt complex, 20 to 45 percent slopes, very stony	2,032	0.4
151A	Bluffton loam, 0 to 2 percent slopes	1,032	0.2
152A	Alstad loam, 0 to 3 percent slopes	4,266	0.8
154E	Cushing fine sandy loam, 20 to 35 percent slopes	590	0.1
156B	Magnor, very stony-Magnor complex, 0 to 4 percent slopes	2,230	0.4
157B	Freeon, very stony-Freeon complex, 2 to 6 percent slopes	3,412	0.6
157C	Freeon, very stony-Freeon complex, 6 to 12 percent slopes	1,764	0.3
160A	Oesterle sandy loam, 0 to 2 percent slopes	1,233	0.2
165B	Elderon sandy loam, 2 to 6 percent slopes	237	*
185B	Tradelake-Taylor complex, 1 to 6 percent slopes	583	0.1
185C	Tradelake-Taylor complex, 6 to 12 percent slopes	445	*
185D	Tradelake-Taylor complex, 12 to 25 percent slopes	254	*
185E	Tradelake-Taylor complex, 25 to 35 percent slopes	95	*
189A	Siren loam, 0 to 3 percent slopes	1,679	0.3
193A	Minocqua muck, 0 to 2 percent slopes	417	*
337A	Plover fine sandy loam, 0 to 3 percent slopes	953	0.2
368B	Mahtomedi-Cress complex, 2 to 6 percent slopes	964	0.2
368C	Mahtomedi-Cress complex, 6 to 12 percent slopes	938	0.2
368D	Mahtomedi-Cress complex, 12 to 25 percent slopes	856	0.2
368E	Mahtomedi-Cress complex, 25 to 35 percent slopes	763	0.1
380B	Cress-Rosholt complex, 2 to 6 percent slopes	609	0.1
380C	Cress-Rosholt complex, 6 to 12 percent slopes	937	0.2
380D	Cress-Rosholt complex, 12 to 25 percent slopes	1,323	0.2
383B	Mahtomedi loamy sand, 0 to 6 percent slopes	6,307	1.1
383C	Mahtomedi loamy sand, 6 to 12 percent slopes	5,046	0.9
383D	Mahtomedi loamy sand, 12 to 30 percent slopes	5,604	1.0
392C	Rockmarsh-Dairyland-Makwa, seeped, complex, 2 to 20 percent slopes, very stony	568	0.1
396B	Friendship-Wurtsmith-Grayling complex, 0 to 6 percent slopes	20,895	3.7
397A	Perchlake loamy fine sand, 0 to 2 percent slopes	1,915	0.3
399B	Grayling sand, 0 to 6 percent slopes	46,624	8.3
399C	Grayling sand, 6 to 12 percent slopes	17,059	3.0
399D	Grayling sand, 12 to 30 percent slopes	11,576	2.1
406A	Loxley mucky peat, 0 to 1 percent slopes	10,402	1.8
407A	Seelyeville and Markey soils, 0 to 1 percent slopes	25,819	4.6
410A	Seelyeville and Cathro soils, 0 to 1 percent slopes	3,244	0.6
419A	Seelyeville, Cathro, and Markey soils, 0 to 1 percent slopes	778	0.1
421A	Dora, Markey, and Seelyeville soils, 0 to 1 percent slopes	3,819	0.7
422A	Seelyeville, Cathro, and Rondeau soils, 0 to 1 percent slopes	1,724	0.3
426B	Emmert-Mahtomedi-Menahga complex, 2 to 6 percent slopes	286	*
426C	Emmert-Mahtomedi-Menahga complex, 6 to 12 percent slopes	329	*
426D	Emmert-Mahtomedi-Menahga complex, 12 to 30 percent slopes	224	*
430A	Freya loamy fine sand, 0 to 3 percent slopes	2,431	0.4
439B	Graycalm-Menahga complex, 0 to 6 percent slopes	20,069	3.6
439C	Graycalm-Menahga complex, 6 to 12 percent slopes	24,108	4.3
439D	Graycalm-Menahga complex, 12 to 30 percent slopes	19,835	3.5
442C	Haugen, very stony-Greenwood complex, 0 to 15 percent slopes	734	0.1
443D	Amery, very stony-Greenwood complex, 0 to 35 percent slopes	728	0.1
459A	Loxley, Daisybay, and Dawson soils, 0 to 1 percent slopes	855	0.2
461A	Bowstring muck, 0 to 1 percent slopes, frequently flooded	12,820	2.3

See footnote at end of table.

Table 2.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
465A	Newson-Meehan complex, 0 to 3 percent slopes	3,981	0.7
469E	Bigisland-Milaca complex, 15 to 45 percent slopes, very stony	1,335	0.2
471B	Dairyland-Emmert complex, 0 to 6 percent slopes, very stony	1,788	0.3
471C	Dairyland-Emmert complex, 6 to 15 percent slopes, very stony	555	*
472A	Rockmarsh-Clemens complex, 0 to 2 percent slopes, very stony, frequently flooded	974	0.2
473A	Dairyland-Skog complex, 0 to 3 percent slopes, very stony, rarely flooded	1,388	0.2
484A	Greenwood and Beseman soils, 0 to 1 percent slopes	189	*
485C	Lupton and Tawas soils, seeped, 2 to 15 percent slopes	472	*
495B	Karlsborg-Grettum-Perida complex, 1 to 6 percent slopes	2,779	0.5
495C	Karlsborg-Grettum-Perida complex, 6 to 12 percent slopes	4,328	0.8
495D	Karlsborg-Grettum-Perida complex, 12 to 30 percent slopes	3,117	0.6
496B	Karlsborg loamy sand, 1 to 6 percent slopes	3,176	0.6
496C	Karlsborg loamy sand, 6 to 12 percent slopes	1,593	0.3
496D	Karlsborg loamy sand, 12 to 30 percent slopes	549	*
497A	Meenon loamy sand, 0 to 3 percent slopes	5,441	1.0
521A	Dody muck, 0 to 2 percent slopes	797	0.1
523A	Nokasippi muck, 0 to 1 percent slopes	277	*
529B	Perida sand, 0 to 4 percent slopes	2,158	0.4
531A	Stengel loamy sand, 0 to 3 percent slopes	1,699	0.3
542B	Haugen, very stony-Haugen complex, 2 to 6 percent slopes	3,940	0.7
542C	Haugen, very stony-Haugen complex, 6 to 12 percent slopes	3,757	0.7
544F	Menahga and Mahtomedi soils, 30 to 45 percent slopes	6,944	1.2
553B	Branstad fine sandy loam, 2 to 6 percent slopes	5,377	1.0
553C	Branstad fine sandy loam, 6 to 12 percent slopes	3,023	0.5
553D	Branstad fine sandy loam, 12 to 20 percent slopes	1,897	0.3
555A	Fordum silt loam, 0 to 2 percent slopes, frequently flooded	817	0.1
557B	Shawano fine sand, 0 to 6 percent slopes	6,157	1.1
557C	Shawano fine sand, 6 to 12 percent slopes	2,754	0.5
557D	Shawano fine sand, 12 to 30 percent slopes	1,132	0.2
586A	Chelmo sandy loam, 0 to 2 percent slopes	500	*
600A	Haplosaprists and Psammaquents, 0 to 2 percent slopes	275	*
615B	Cress sandy loam, 0 to 6 percent slopes	2,825	0.5
615C	Cress sandy loam, 6 to 12 percent slopes	2,538	0.5
615D	Cress sandy loam, 12 to 30 percent slopes	1,403	0.2
620C	Lundeen-Haustrup-Rock outcrop complex, 2 to 12 percent slopes, very stony	10	*
621A	Bjorkland peat, 0 to 2 percent slopes	1,966	0.3
623A	Capitola muck, 0 to 2 percent slopes, very stony	387	*
624A	Ossmer silt loam, 0 to 3 percent slopes	56	*
631A	Giese muck, 0 to 1 percent slopes, very stony	270	*
632A	Aftad fine sandy loam, 0 to 2 percent slopes	273	*
632B	Aftad fine sandy loam, 2 to 6 percent slopes	804	0.1
632C	Aftad fine sandy loam, 6 to 12 percent slopes	147	*
634C	Drylanding-Beartree complex, 0 to 12 percent slopes, rocky	49	*
635C	Drylanding-Beartree complex, 0 to 12 percent slopes, rocky, rarely flooded	119	*
648B	Sconsin silt loam, 1 to 6 percent slopes	143	*
669D	Fremstadt, stony-Pomroy complex, 15 to 30 percent slopes	3,037	0.5
671B	Spoonerhill, stony-Spoonerhill complex, 2 to 6 percent slopes	330	*
706A	Winterfield-Totagatic complex, 0 to 2 percent slopes, frequently flooded	1,568	0.3
715A	Mora silt loam, 0 to 3 percent slopes, very stony	65	*
717B	Milaca silt loam, 3 to 6 percent slopes, very stony	319	*
717C	Milaca silt loam, 6 to 12 percent slopes, very stony	83	*
720F	Haustrup-Lundeen-Rock outcrop complex, 12 to 65 percent slopes, very stony	87	*
726B	Sissabagama loamy sand, 0 to 6 percent slopes	1,273	0.2
742B	Milaca sandy loam, 2 to 6 percent slopes, very stony	2,050	0.4
742C	Milaca sandy loam, 6 to 12 percent slopes, very stony	580	0.1
742D	Milaca sandy loam, 12 to 20 percent slopes, very stony	124	*

See footnote at end of table.

Table 2.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
755A	Moppet, occasionally flooded-Fordum, frequently flooded, complex, 0 to 3 percent slopes	106	*
771A	Lenroot loamy sand, 0 to 3 percent slopes	80	*
812B	Mora sandy loam, 0 to 4 percent slopes, very stony	755	0.1
825A	Meehan sand, 0 to 2 percent slopes	1,263	0.2
896A	Wurtsmith sand, 0 to 3 percent slopes	223	*
980A	Soderbeck very gravelly loam, 0 to 2 percent slopes, very stony, rarely flooded	130	*
1070C	Fremstadt, stony-Cress complex, 6 to 15 percent slopes	298	*
1070D	Fremstadt, stony-Cress complex, 15 to 30 percent slopes	260	*
1080B	Spoonerhill-Spoonerhill, stony-Cress complex, 1 to 6 percent slopes	134	*
2002	Udorthents, earthen dams	1	*
2015	Pits	287	*
2050	Landfill	2	*
3011A	Barronett silt loam, 0 to 2 percent slopes	76	*
3082E	Braham-Shawano complex, 12 to 35 percent slopes	92	*
3114A	Saprists, Aquents, and Aquepts, 0 to 1 percent slopes, ponded, flooded	18,671	3.3
3125A	Meehan loamy sand, 0 to 2 percent slopes	3,409	0.6
3126A	Wurtsmith loamy sand, 0 to 3 percent slopes	4,620	0.8
3312B	Glendenning, very stony-Glendenning complex, 0 to 4 percent slopes	2,356	0.4
3336A	Fenander fine sandy loam, 0 to 2 percent slopes	156	*
3403A	Loxley, Beseman, and Dawson soils, 0 to 1 percent slopes	1,501	0.3
3429B	Lara loamy fine sand, 0 to 6 percent slopes	563	0.1
3429C	Lara loamy fine sand, 6 to 12 percent slopes	108	*
3446A	Newson muck, 0 to 2 percent slopes	4,754	0.8
3448B	Grettum loamy sand, 0 to 6 percent slopes	22,625	4.0
3448C	Grettum loamy sand, 6 to 12 percent slopes	8,018	1.4
3510B	Pomroy-Fremstadt-Fremstadt, stony, complex, 1 to 6 percent slopes	7,039	1.3
3510C	Pomroy-Fremstadt-Fremstadt, stony, complex, 6 to 15 percent slopes	4,118	0.7
3511A	Bushville loamy sand, 0 to 3 percent slopes	1,218	0.2
3516A	Slimlake sandy loam, 0 to 3 percent slopes	404	*
3625A	Lino loamy fine sand, 0 to 2 percent slopes	2,113	0.4
3626A	Crex loamy fine sand, 0 to 3 percent slopes	7,078	1.3
3629B	Perida loamy sand, 0 to 4 percent slopes	1,634	0.3
3636B	Plainbo sand, 2 to 6 percent slopes	47	*
3636C	Plainbo sand, 6 to 12 percent slopes	12	*
M-W	Miscellaneous water	17	*
W	Water	40,509	7.2
	Total	562,733	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, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; as sites for agricultural waste management; 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 in all or part of the survey area. 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, poor,* and *very 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 Grantsburg during the period from 1971 to 2000. 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 13.2 degrees F and the average daily minimum temperature is 2.6 degrees. The lowest temperature on record, which occurred on January 14, 1965, is -44 degrees. In summer, the average temperature is 66.7 degrees and the average daily maximum temperature is 78.1 degrees. The highest temperature, which occurred on July 7, 1988, is 100 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 31.82 inches. Of this total, 20.28 inches, or about 64 percent, usually falls in May through September. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 5.58 inches on August 31, 1973. Thunderstorms occur on about 35 days each year, and most occur between late May and early September.

The average seasonal snowfall is 51.6 inches. The greatest snow depth at any one time during the period of record was 35 inches recorded on March 5, 1979. On an average, 59 days per year have at least 1 inch of snow on the ground. The heaviest 1-day snowfall on record was 17 inches on December 28, 1982.

The average relative humidity in midafternoon is about 50 percent in May and 70 percent in December. Humidity is higher at night, and the average at dawn is about 80 percent in most months. The sun shines approximately 65 percent of the time possible in summer and about 50 percent in winter. The prevailing wind is from the northwest from October through April and from the south the rest of the year. Average windspeed is highest, around 12 miles per hour, in April.

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 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 tables 7a and 7b.

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.

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 the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Pasture and Hayland Interpretations

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 pasture 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 the Cooperative Extension Service can provide information about forage yields other than those shown in the yields tables.

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 forest land 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 forest land. 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 forest land 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, forest land, wildlife habitat, or recreation.

The capability classification of map units in the survey area is given in tables 7a and 7b.

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 forest land 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 that have a saturated zone 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 51,472 acres, or about 9 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 8. This list does not constitute a recommendation for a particular land use. 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.”

Conservation Tree/Shrub Suitability Groups

Conservation tree/shrub 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 conservation plantings are about the same. The conservation tree/shrub suitability groups assigned to the soils in the survey area are listed in table 9. Descriptions of the groups are provided in the “National Forestry Manual,” which is available in local offices of the Natural Resources Conservation Service or on the Internet.

Forest Land Management

Information about the hazards and limitations that should be considered in areas used as forest land is given in tables 10 through 13.

Forest Land Harvest Equipment Considerations

Table 10 provides information regarding the use of harvest equipment in areas used as forest land.

For most soils spring is the most limiting season. Alternate thawing and freezing during snowmelt cause saturation and low strength of the surface soil layers. When thawing is complete, saturation continues for short periods in well drained soils to nearly all year in very poorly drained soils in depressions. Degrees of wetness are generally proportionate to the depth at which a zone of saturation occurs. This zone generally is lower in summer during the heavy use of moisture by vegetation and is nearer the surface during periods when absorbed precipitation is greater than the vegetation requires. Harvesting during periods of saturation usually results in severe soil damage, except when the soil is frozen. The preferred season for timber harvest on many soils is winter, when wetness and low soil strength can be overcome by freezing.

Considerations shown in table 10 are as follows:

Slope.—The upper slope limit is more than 15 percent.

Flooding.—The soil is frequently flooded.

Wetness.—The soil is somewhat poorly drained, poorly drained, or very poorly drained or has a perched zone in which the soil moisture status is wet (any drainage class).

Depth to hard rock.—The depth to hard bedrock is less than 10 inches.

Rubbly surface.—The word “rubbly” is in the map unit name.

Surface stones.—The words “extremely stony” are in the map unit name.
Surface boulders.—The word “bouldery” is in the map unit name.
Areas of rock outcrop.—Rock outcrop is a named component in the map unit.
Susceptible to rutting and wheel slippage (low strength).—The AASHTO classification is A-6, A-7, or A-8 in any layer at a depth of 20 inches or less.
Poor traction (loose sandy material).—The USDA texture includes sands or loamy sands in any layer at a depth of 10 inches or less.

Forest Haul Road Considerations

Table 11 provides information regarding the use of the soils as haul roads. Haul roads serve as transportation routes from log landings to primary roads. Generally, haul roads are unpaved, but some are graveled.
Considerations shown in the table are as follows:
Slope.—The slope is 8 percent or more.
Flooding.—The soil is frequently flooded.
Wetness.—The soil is somewhat poorly drained, poorly drained, or very poorly drained or has a perched zone in which the soil moisture status is wet (any drainage class).
Depth to hard rock.—The depth to hard bedrock is less than 20 inches.
Depth to soft rock.—The depth to soft bedrock is less than 20 inches.
Surface boulders.—The word “bouldery” is in the map unit name.
Areas of rock outcrop.—Rock outcrop is a named component in the map unit.
Low bearing strength.—The AASHTO classification is A-6, A-7, or A-8 in any layer at a depth of 20 inches or less.
Rubbly surface.—The word “rubbly” is in the map unit name.

Forest Log Landing Considerations

Table 12 provides information regarding the use of the soils as log landings. Log landings are areas where logs are assembled for transportation. Areas that require little or no cutting, filling, or surface preparation are desired.
Considerations shown in the table are as follows:
Slope.—The slope is more than 3 percent.
Flooding.—The soil is occasionally flooded or frequently flooded.
Wetness.—The soil is somewhat poorly drained, poorly drained, or very poorly drained or has a perched zone in which the soil moisture status is wet (any drainage class).
Surface boulders.—The word “bouldery” is in the map unit name.
Areas of rock outcrop.—Rock outcrop is a named component in the map unit.
Susceptible to rutting and wheel slippage (low strength).—The AASHTO classification is A-6, A-7, or A-8 in any layer at a depth of 20 inches or less.
Rubbly surface.—The word “rubbly” is in the map unit name.

Forest Land Site Preparation and Planting Considerations

Table 13 provides information regarding considerations affecting site preparation and planting in areas used as forest land.
Considerations shown in the table are as follows:
Slope.—The upper slope limit is more than 15 percent.
Flooding.—The soil is frequently flooded.
Wetness.—The soil is somewhat poorly drained, poorly drained, or very poorly drained or has a perched zone in which the soil moisture status is wet (any drainage class).

Depth to hard rock.—The depth to hard bedrock is less than 20 inches.
Surface stones.—The word “stony” is in the map unit name.
Surface boulders.—The word “bouldery” is in the map unit name.
Areas of rock outcrop.—Rock outcrop is a named component in the map unit.
Water erosion.—The slope is 8 percent or more.
Potential poor tilth and compaction.—The AASHTO classification is A-6 or A-7 in the upper 10 inches.
Rubbly surface.—The word “rubbly” is in the map unit name.
Cobbly surface.—The word “cobbly” is in the map unit name.

Forest Habitat Types

Joseph A. Kovach, forest ecologist/silviculturist, Division of Forestry, Wisconsin Department of Natural Resources, helped prepare this section.

The forest habitat type classification system (FHTCS) is a site classification system based on the floristic composition of plant communities. The system depends on the identification of potential climax associations, repeatable patterns in the composition of the understory vegetation, and differential understory species. It groups land units with similar capacity to produce vegetation. The floristic composition of the plant community is used as an integrated indicator of those environmental factors that affect species reproduction, growth, competition, and community development. This classification system enables the recognition of ecologically similar landscape units and vegetation communities. It is a system for classifying forest plant communities and the sites on which they develop.

A forest habitat type is an aggregation of sites (units of land) capable of producing similar late-successional (potential climax) forest plant communities. Each recognizable habitat type represents a relatively narrow segment of environmental variation that is characterized by a certain limited potential for vegetation development. Although at any given time a habitat type can support a variety of disturbance-induced (seral) plant communities, the ultimate product of succession is presumed to be a similar climax community. Field identification of a habitat type provides a convenient label (habitat type name) for a given site and places that site in the context of a larger group of sites that share similar ecological traits.

Forest habitat types are characterized by plant associations, not by individual indicator species. Differential (diagnostic) species combinations in the understory flora are used to identify habitat types at any successional stage, but these combinations have meaning only in the context of the specific habitat types or groups being compared.

The forest habitat types in Burnett County can be identified and interpreted using *Field Guide to Forest Habitat Types of Northern Wisconsin*, 2nd edition (Kotar and others, 2002). The guide provides keys to habitat type identification based on the presence or absence of differential understory species; describes the characteristic understory species composition, the common forest cover types, and the expected successional trends; and summarizes management implications for each habitat type. Management considerations include inherent site capability (biological potential), potential responses to disturbance, competition, successional trends, potential cover types, and expected suitability and productivity for specific tree species. Additional interpretive information is available in *Wisconsin Forest Statistics, 1996: Analysis by Habitat Type Class* (Kotar and others, 1999).

Although soil map units do not coincide exactly with habitat types, there is a strong correlation between them. Soil moisture and nutrient regimes are key factors determining habitat type occurrence. Habitat types for the soils in Burnett County are shown in table 14. A single habitat type is considered *dominant* if it constitutes more than 60 percent coverage (one habitat type that has more than 60 percent

occurrence). If no habitat types are dominant but two types with 25 to 59 percent occurrence add up to more than 70 percent, then they would be considered *codominant.* A *common* habitat type is listed when the expected frequency of occurrence is 15 to 55 percent and the requirements for identification as codominant are not met.

The following paragraphs briefly describe the habitat types in the county. The types are listed in the following order: dry and nutrient-poor sites; mesic and nutrient-rich sites; wet-mesic sites (nutrient rich to nutrient poor); and wet sites.

Region 1 Habitat Types (predominant in Burnett County)

PQGCe—Pinus strobus-Quercus spp./Gaultheria procumbens-Ceanothus americanus habitat type. The common name is Eastern white pine-Oaks/Wintergreen-New Jersey tea. The presumed potential climax overstory is dominated by eastern white pine and oaks (white oak, bur oak, northern red oak, and northern pin oak). Currently, common cover types include any mixture of jack pine, red pine, northern pin oak, and northern red oak. Aspen is an occasional dominant or associate, whereas bur oak and white oak are occasional associates. The dominant ground flora commonly includes grasses and sedges, hazelnut, blueberry, blackberries, juneberry, wild rose, bracken fern, wild lily-of-the-valley, wintergreen, northern bedstraw, and oak seedlings.

The moisture regime is dry, and the nutrient regime is poor. The pines (jack pine, red pine, and white pine) exhibit moderate potential productivity. The timber productivity of other species is relatively poor, but the oaks do provide abundant mast for wildlife.

This habitat type is common on outwash plains throughout the county.

PQGCe(Ap)—Amorpha canescens (leadplant) phase. This phase is identified by the presence of leadplant or bluebell. It appears to be associated with a historically distinct fire disturbance regime. It occurs on outwash plains in the southwest corner of the county.

QAp—Quercus spp./Amorpha canescens habitat type. The common name is Oaks/Leadplant. The presumed potential climax overstory is dominated by oaks (white oak, bur oak, northern red oak, and northern pin oak) and perhaps eastern white pine. Currently, common cover types include any mixture of jack pine and pin oak. Frequent associates and occasional dominants include northern red oak, bur oak, white oak, aspen, and red pine. The dominant ground flora frequently includes grasses and sedges, hazelnut, chokecherry, juneberry, blackberries, blueberry, wild rose, leadplant, poison ivy, wild lily-of-the-valley, wild columbine, and oak seedlings. Bracken fern is abundant in some places.

The moisture regime is dry, and the nutrient regime is poor or medium. The pines (jack pine, red pine, and white pine) exhibit good potential productivity, but regeneration of jack pine can be difficult because of intense shrub competition. Oaks and aspen demonstrate only moderate productivity, but the oaks do provide abundant mast for wildlife.

This habitat type occurs on outwash plains in the southwest corner of the county.

PArVAm—Pinus strobus-Acer rubrum/Vaccinium angustifolium-Amphicarpa bracteata habitat type. The common name is Eastern white pine-Red maple/Blueberry-Hog peanut. The presumed potential climax overstory is dominated by eastern white pine, red maple, northern red oak, and white oak. Currently, common cover types include any mixture of aspen, white oak, red oak, and red maple. Overstory associates include white birch, northern pin oak, bur oak, white pine, red pine, and jack pine. The dominant ground flora commonly includes grasses and sedges, hazelnut, juneberry, blackberries, blueberry, bracken fern, bigleaf aster, hog peanut, wild sarsaparilla, and red maple seedlings.

The moisture regime is dry or dry-mesic, and the nutrient regime is poor or medium. All of the pines exhibit excellent potential productivity, but intense competition often limits opportunities for the establishment and maintenance of jack pine. Aspen and paper birch can exhibit good growth and productivity, but the oaks and red maple demonstrate only moderate productivity.

This habitat type is most common on outwash plains throughout the county, but it also occurs on moraines and glacial lake plains.

PArVAm(Ap)—Amorpha canescens (leadplant) phase. This phase is identified by the presence of leadplant or bluebell. It occurs only in the western part of the county. It appears to be associated with a historically distinct fire disturbance regime.

AVDe—Acer saccharum/Vaccinium angustifolium-Desmodium glutinosum habitat type. The common name is Sugar maple/Blueberry-Pointed-leaved tick trefoil. The presumed potential climax overstory is dominated by sugar maple, red maple, American basswood, and white ash but may also include northern red oak, white oak, and eastern white pine. Currently, common cover types include any mixture of aspen, white oak, red oak, and red maple. Overstory associates include sugar maple, basswood, white pine, and white birch. The dominant ground flora commonly includes grasses and sedges, maple-leaved viburnum, hazelnut, blackberries, bracken fern, bigleaf aster, pointed-leaved tick trefoil, hog peanut, wild sarsaparilla, interrupted fern, ironwood, and red maple and sugar maple seedlings.

The moisture regime is dry-mesic, and the nutrient regime is medium. Trees exhibiting excellent potential productivity include white pine, red pine, white birch, and aspen. Also, white oak, red oak, and red maple can exhibit good growth and productivity. The mesic hardwoods (sugar maple, basswood, and white ash) offer only moderate to poor potential productivity.

This habitat type is common on rolling moraines and outwash plains in the southern part of the county and on stream terraces along the St. Croix River.

AAt—Acer saccharum/Athyrium filix-femina habitat type. The common name is Sugar maple/Lady fern. The presumed potential climax overstory is dominated by sugar maple, basswood, white ash, and red maple. Currently, common cover types include any mixture of northern red oak, white oak, red maple, sugar maple, and aspen. Common overstory associates include American basswood, white ash, eastern white pine, and white birch. The dominant ground flora commonly includes grasses and sedges, sugar maple seedlings, ironwood seedlings, hazelnut, bigleaf aster, hog peanut, pointed-leaved tick trefoil, lady fern, interrupted fern, bracken fern, early meadow rue, sweet cicely, trilliums, sessile-leaved bellwort, wild sarsaparilla, and maple-leaved viburnum.

The moisture regime is dry-mesic, and the nutrient regime is medium or rich. Mesic hardwoods (sugar maple, basswood, white ash, and red maple) are very competitive, and potential productivity is good. Red oak, white oak, and white pine demonstrate excellent productivity but require significant disturbance for successful regeneration. Following severe disturbance, aspen and paper birch can demonstrate excellent productivity as pioneers.

This habitat type is common on moraines and outwash plains in the southern part of the county.

ACaCi—Acer saccharum/Caulophyllum thalictroides-Circaea quadrisulcata habitat type. The common name is Sugar maple/Blue cohosh-Enchanter's nightshade. The presumed potential climax overstory is dominated by sugar maple, American basswood, and white ash. Currently, common cover types include any mixture of sugar maple, northern red oak, white oak, and aspen. Common associates are red maple, basswood, white ash, black cherry, and white birch. The dominant ground flora commonly includes grasses and sedges, sugar maple seedlings, bigleaf aster, wild geranium, sweet cicely, lady fern, early meadow rue, trilliums, yellow violets, enchanter's nightshade, hog peanut, maidenhair fern, and black snakeroot.

The moisture regime is mesic or dry-mesic, and the nutrient regime is rich. Most tree species can exhibit excellent growth and productivity on these sites if establishment opportunities exist and competition is controlled. Northern hardwoods demonstrate excellent productive potential and competitive advantages. Oaks commonly are present but require aggressive management (significant disturbance) for regeneration.

This habitat type is common on moraines and outwash plains in the southern part of the county.

ASal—Acer saccharum/Sanguinaria canadensis-Impatiens capensis habitat type. The common name is Sugar maple/Bloodroot-Jewelweed. The presumed potential climax overstory is dominated by sugar maple, red maple, white ash, green ash, black ash, American basswood, and yellow birch. Currently, common cover types include any mixture of aspen, red maple, oaks (red oak, white oak, and bur oak), basswood, and white birch. The dominant ground flora commonly includes grasses and sedges, lady fern, sweet cicely, jewelweed, bigleaf aster, wood anemone, trilliums, bloodroot, early meadow rue, gooseberry, sensitive fern, interrupted fern, wild geranium, Virginia creeper, Virginia waterleaf, enchanter's nightshade, black snakeroot, hog peanut, and hazelnut.

The moisture regime is wet-mesic or mesic, and the nutrient regime is rich. Although the characteristic dampness can limit tree growth and productivity, most of the commonly occurring tree species can exhibit good potential productivity. Mesic hardwoods (sugar maple, basswood, and white ash) are most competitive in the absence of disturbance, but productivity is only good to moderate. Mid-tolerant hardwoods that require some disturbance for regeneration but that demonstrate good to excellent productive potential are black ash and red maple.

This habitat type is somewhat common on moraines, outwash plains, and glacial lake plains in the southern part of the county and on the stream terraces along the St. Croix River.

ArVRp—Acer rubrum/Vaccinium spp.-Rubus pubescens habitat type. The common name is Red maple/Blueberries-Dwarf raspberry. The presumed potential climax overstory is dominated by red maple and eastern white pine. Currently, aspen and red maple dominate most stands. Common associates and occasional dominants include white birch, pines (white pine, red pine, and jack pine), and oaks (white oak, bur oak, northern red oak, and northern pin oak). The dominant ground flora commonly includes grasses and sedges, hazelnut, bush honeysuckle, bunchberry, dwarf raspberry, swamp dewberry, bracken fern, interrupted fern, lady fern, bigleaf aster, wild lily-of-the-valley, sessile-leaved bellwort, wild sarsaparilla, and red maple seedlings.

The moisture regime is wet-mesic to dry-mesic, and the nutrient regime is poor or medium. Although the characteristic dampness can limit tree growth and productivity, most of the commonly occurring tree species can exhibit good to moderate potential productivity. White pine offers the greatest growth potential.

This habitat type is somewhat common on outwash plains and glacial lake plains throughout the county.

Region 2 Habitat Types (occurring only in the extreme northwest corner of Burnett County, on the undulating ground moraines and outwash terraces northwest of the St. Croix River)

AVCl—Acer saccharum/Vaccinium species-Clintonia borealis habitat type. The common name is Sugar maple/Blueberries-Yellow beadlily. The presumed potential climax overstory is dominated by sugar maple, red maple, and balsam fir but may also include eastern white pine and northern red oak. Currently, common cover types include any mixture of aspen, white birch, red oak, red maple, sugar maple, and balsam fir. The dominant ground flora commonly includes hazelnut, mountain maple,

juneberry, alternate-leaved dogwood, fly honeysuckle, bush honeysuckle, blueberries, bracken fern, wild sarsaparilla, bigleaf aster, wild lily-of-the-valley, yellow beadlily, ground-pine, starflower, rosy twistedstalk, sessile bellwort, spinulose shield fern, and seedlings of sugar maple, red maple, balsam fir, and ironwood.

The moisture regime is dry-mesic, and the nutrient regime is poor or medium. Trees exhibiting excellent potential productivity on these sites include white pine, white birch, and aspen. Also, red oak, red maple, white spruce, and balsam fir can exhibit good growth and productivity. The mesic hardwoods (sugar maple, basswood, white ash, and yellow birch) offer only poor to moderate potential productivity.

ACl—Acer saccharum/Clintonia borealis habitat type. The common name is Sugar maple/Yellow beadlily. The presumed potential climax overstory is dominated by sugar maple, red maple, American basswood, and yellow birch. Currently, common cover types include any mixture of sugar maple, red maple, northern red oak, white birch, and aspen. Common associates are basswood and yellow birch. The dominant ground flora commonly includes hazelnut, alternate-leaved dogwood, fly honeysuckle, wild sarsaparilla, bigleaf aster, starflower, sessile bellwort, hairy Solomon's seal, rosy twistedstalk, wild lily-of-the-valley, yellow beadlily, spinulose shield fern, and ironwood and sugar maple seedlings.

The moisture regime is dry-mesic, and the nutrient regime is medium. Trees exhibiting excellent potential productivity on these sites include white pine, white spruce, white birch, and aspen. Also, red oak, red maple, and balsam fir can exhibit good growth and productivity. The mesic hardwoods (sugar maple, basswood, white ash, and yellow birch) offer only moderate potential productivity.

AAs—Acer saccharum/Arisaema atrorubens habitat type. The common name is Sugar maple/Jack-in-the-pulpit. The presumed potential climax overstory is dominated by sugar maple, American basswood, yellow birch, and red maple. Currently, most stands are dominated by sugar maple. Common overstory associates include basswood, white birch, northern red oak, red maple, yellow birch, and aspen. The dominant ground flora commonly includes hazelnut, alternate-leaved dogwood, mountain maple, juneberry, fly honeysuckle, lady fern, spinulose shield fern, wild sarsaparilla, bigleaf aster, yellow beadlily, rosy twistedstalk, sessile bellwort, wild lily-of-the-valley, sweet cicely, jack-in-the-pulpit, trillium, baneberry, yellow violets, wood anemone, starflower, and ironwood and sugar maple seedlings.

The moisture regime is mesic, and the nutrient regime is medium or rich. Most trees can exhibit excellent growth and productivity on these sites if establishment opportunities exist and competition is controlled. Northern hardwoods demonstrate excellent potential productivity and competitive advantages.

AAtRp—Acer saccharum/Athyrium filix-femina-Rubus pubescens habitat type. The common name is Sugar maple/Lady fern-Dwarf raspberry. The presumed potential climax overstory is dominated by sugar maple, red maple, ashes (black ash, green ash, and white ash), American basswood, yellow birch, and balsam fir. Currently, common cover types include any mixture of aspen, red maple, and sugar maple. Common associates and occasional dominants are northern red oak, black ash, balsam fir, white birch, basswood, green ash, and yellow birch. The dominant ground flora commonly includes hazelnut, juneberry, gooseberries, alder, dwarf raspberry, bunchberry, bush honeysuckle, bracken fern, interrupted fern, lady fern, spinulose shield fern, horsetails, wild sarsaparilla, bigleaf aster, wild lily-of-the-valley, yellow beadlily, sessile bellwort, rosy twistedstalk, starflower, and seedlings of sugar maple, red maple, and ironwood.

The moisture regime is wet-mesic or mesic, and the nutrient regime is medium. Although the characteristic dampness can limit tree growth and productivity, most of the commonly occurring tree species can exhibit good potential productivity. These sites are not ideal for management of northern hardwoods because the growth and quality of sugar maple are limited.

Forest Lowland Habitat Types

No forested lowland habitat types have been defined and characterized. Currently, common lowland cover types include any mixture of northern white-cedar, tamarack, black spruce, balsam fir, black ash, red maple, silver maple, and aspen. To help identify biological potentials, these poorly drained and very poorly drained sites can be subdivided into flood plain (Lfp), mineral soil lowland (Llmin), nonacid organic soil lowland (Lnorg), and acid organic soil lowland (Laorg). Forested lowlands are common throughout the county.

Recreation

The soils of the survey area are rated in tables 15a and 15b 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 tables 15a and 15b can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, 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. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

In table 16, 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. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of grain and seed crops are corn, soybeans, wheat, oats, and barley.

Grasses and legumes are domestic perennial grasses and herbaceous legumes. Soil properties and features that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, flooding, and slope. Soil temperature and soil moisture also are considerations. Examples of grasses and legumes are bromegrass, timothy, orchardgrass, clover, alfalfa, wheatgrass, and birdsfoot trefoil.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of wild herbaceous plants are bluestems, indiangrass, blueberry, goldenrod, lambsquarters, dandelions, blackberry, ragweed, and nightshade.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, available water capacity, and wetness. Examples of these plants are oak, poplar, box elder, birch, maple, green ash, willow, and American elm. Examples of fruit-producing shrubs that are suitable for planting on soils rated *good* are Russian olive and crabapple.

Coniferous plants furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine, spruce, cedar, and tamarack.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction, salinity, slope, and surface stoniness. Examples of wetland plants are smartweeds, wild millet, rushes, sedges, bulrushes, wild rice, arrowhead, waterplantain, cattail, prairie cordgrass, bluejoint grass, asters, and beggarticks.

Shallow water areas have an average depth of less than 5 feet. Some are naturally wet areas. Others are created by dams, levees, or other water-control structures. Soil properties and features affecting shallow water areas are depth to bedrock, wetness,

surface stoniness, slope, and permeability. Examples of shallow water areas are waterfowl feeding areas, wildlife watering developments, beaver ponds, and other wildlife ponds.

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, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. 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 deciduous and/or coniferous plants and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include wild turkey, ruffed grouse, thrushes, woodpeckers, owls, tree squirrels, porcupine, raccoon, white-tailed deer, and black bear.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are 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, sanitary facilities, 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, shrink-swell potential, 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; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; 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 17a and 17b 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 seasonal 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.

Sanitary Facilities

Tables 18a and 18b show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. 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 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).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a zone in which the soil moisture status is wet, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a zone in which the soil moisture status is wet, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if a saturated zone is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A *trench sanitary landfill* is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, depth to a zone in which the soil moisture status is wet, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the

movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a zone in which the soil moisture status is wet, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or a saturated zone is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a zone in which the soil moisture status is wet, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or a saturated zone to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

Construction Materials

Tables 19a and 19b 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 19a, 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 gravel or sand. 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.

In table 19b, 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 table. 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 this table, 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 20 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 wet zone high in the soil profile 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 water table. 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 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.

Agricultural Waste Management

Soil properties are important considerations in areas where soils are used as sites for the treatment and disposal of organic waste and wastewater. Selection of soils with properties that favor waste management can help to prevent environmental damage.

Tables 21a and 21b show the degree and kind of soil limitations affecting the treatment of agricultural waste, including municipal and food-processing wastewater and effluent from lagoons or storage ponds. Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. In the context of these tables, the effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 milligrams per liter. The wastewater from animal waste treatment lagoons or storage ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 milligrams per liter. When wastewater is applied, checks should be made to ensure that nitrogen, heavy metals, and salts are not added in excessive amounts.

The ratings in the tables are for waste management systems that not only dispose of and treat organic waste or wastewater but also are beneficial to crops (application of manure and food-processing waste, application of sewage sludge, and disposal of wastewater by irrigation) and for waste management systems that are designed only for the purpose of wastewater disposal and treatment (overland flow of wastewater).

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 agricultural waste management. *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).

Application of manure and food-processing waste not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. Manure is the excrement of livestock and poultry, and food-processing waste is damaged fruit and vegetables and the peelings, stems, leaves, pits, and soil particles removed in food preparation. The manure and food-processing waste are either solid, slurry, or liquid. Their nitrogen content varies. A high content of nitrogen limits the application rate. Toxic or otherwise dangerous wastes, such as those mixed with the lye used in food processing, are not considered in the ratings.

The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the waste is applied, and the method by

which the waste is applied. The properties that affect absorption include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, and available water capacity. The properties that affect plant growth and microbial activity include reaction, the sodium adsorption ratio, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Application of sewage sludge not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. In the context of this table, sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy metals and exotic organic compounds, and should be analyzed chemically prior to use.

The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge. Permanently frozen soils are unsuitable for waste treatment.

Disposal of wastewater by irrigation not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also can improve crop production by increasing the amount of water available to crops. The ratings in the table are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, permeability, slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, depth to a water table, and ponding. The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a soil to adsorb heavy metals. Permanently frozen soils are not suitable for disposal of wastewater by irrigation.

Overland flow of wastewater is a process in which wastewater is applied to the upper reaches of sloped land and allowed to flow across vegetated surfaces, sometimes called terraces, to runoff-collection ditches. The length of the run generally is 150 to 300 feet. The application rate ranges from 2.5 to 16.0 inches per week. It commonly exceeds the rate needed for irrigation of cropland. The wastewater leaves solids and nutrients on the vegetated surfaces as it flows downslope in a thin film. Most of the water reaches the collection ditch, some is lost through evapotranspiration, and a small amount may percolate to the ground water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, and the design and construction of the system. Reaction and the cation-exchange capacity affect absorption. Reaction, salinity, and the sodium adsorption ratio affect plant growth and microbial activity. Slope, permeability, depth to a water table, ponding, flooding, depth to bedrock or a cemented pan, stones, and cobbles affect design and construction. Permanently frozen soils are unsuitable for waste treatment.

Table 3.--Temperature and Precipitation

(Recorded in the period 1971-2000 at Grantsburg, Wisconsin)

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----	19.6	-2.1	8.7	44	-33	0	1.15	0.55	1.74	3	13.4
February---	27.1	4.8	16.0	50	-29	1	.84	.31	1.35	2	7.1
March------	38.9	17.8	28.4	67	-14	20	1.75	.91	2.50	4	8.3
April------	55.4	31.4	43.4	83	10	176	2.19	1.02	3.37	5	2.2
May--------	69.0	43.7	56.3	89	25	508	3.50	2.05	4.89	7	.0
June-------	76.0	52.6	64.3	92	35	729	4.57	2.67	6.30	8	.0
July-------	80.4	57.6	69.0	95	43	898	4.24	2.54	5.76	7	.0
August-----	77.9	55.6	66.7	92	40	829	4.56	2.67	5.98	7	.0
September--	68.2	45.8	57.0	87	28	511	3.41	1.86	4.90	6	.0
October----	56.2	34.7	45.4	80	17	211	2.47	1.19	3.58	5	.3
November---	38.5	21.2	29.8	65	-9	28	2.05	.76	3.26	5	9.5
December---	24.4	5.1	14.8	47	-27	1	1.10	.51	1.60	3	10.8
Yearly:											
Average---	52.6	30.7	41.7	---	---	---	---	---	---	---	---
Extreme---	100	-42	---	95	-35	---	---	---	---	---	---
Total-----	---	---	---	---	---	3,910	31.82	25.30	35.77	62	51.6

* 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 1971-2000 at Grantsburg, Wisconsin)

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. 29	May 10	May 21
2 years in 10 later than--	Apr. 24	May 6	May 17
5 years in 10 later than--	Apr. 15	Apr. 27	May 8
First freezing temperature in fall:			
1 year in 10 earlier than--	Oct. 5	Sept. 25	Sept. 15
2 years in 10 earlier than--	Oct. 11	Sept. 29	Sept. 19
5 years in 10 earlier than--	Oct. 21	Oct. 7	Sept. 26

Table 5.--Growing Season

(Recorded in the period 1971-2000 at Grantsburg, Wisconsin)

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	164	143	124
8 years in 10	172	149	129
5 years in 10	188	161	139
2 years in 10	204	172	149
1 year in 10	212	179	154

Table 6.--Cropland Management Considerations

(See text for a description of the considerations listed in this table)

Map symbol and soil name	Cropland management considerations
3A:	
Totagatic	Flooding Excessive permeability High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Bowstring	Flooding Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Ausable	Flooding Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
12A:	
Makwa	Flooding High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Surface stones Wet soil moisture status
22A:	
Comstock	Acid soil Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
27A:	
Scott Lake	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
28B:	
Haugen, very stony	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
28B:	
Haugen	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
Rosholt, very stony	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
Rosholt	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
28C:	
Haugen, very stony	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status Wind erosion
Haugen	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
Rosholt, very stony	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
Rosholt	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 soil name	Cropland management considerations
38A:	
Rosholt	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
38B:	
Rosholt	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
38C:	
Rosholt	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
38D:	
Rosholt	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
42D:	
Amery	Acid soil Slope Dense layer Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wind erosion
43B:	
Antigo	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion
43C:	
Antigo	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion
63A:	
Crystal Lake	Acid soil Potential for ground-water contamination Wet soil moisture status
63B:	
Crystal Lake	Acid soil Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
63C:	
Crystal Lake	Acid soil Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
64A:	
Totagatic	Flooding Excessive permeability High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Winterfield	Flooding Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
69C:	
Keweenaw	Limited available water capacity Limited content of organic matter Potential for ground-water contamination Surface stones Water erosion Wind erosion
Sayner	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
Vilas	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
69E:	
Keweenaw	Slope Limited available water capacity Limited content of organic matter Potential for ground-water contamination Surface stones Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
69E:	
Sayner	Acid soil Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
Vilas	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
82B:	
Cutaway	Excessive permeability Limited content of organic matter Potential for ground-water contamination Wet soil moisture status Wind erosion
Branstad	Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
82C:	
Cutaway	Excessive permeability Limited content of organic matter Potential for ground-water contamination Water erosion Wet soil moisture status Wind erosion
Branstad	Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
83A:	
Smestad	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status Wind erosion
85B:	
Taylor	Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
85C:	
Taylor	Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
86A:	
Indus	Potential poor tilth and compaction Potential for ground-water contamination Restricted permeability Wet soil moisture status
Alango	Potential poor tilth and compaction Potential for ground-water contamination Restricted permeability Wet soil moisture status
89A:	
Wildwood	High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status Wind erosion
96B:	
Karlsborg	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status Wind erosion
96C:	
Karlsborg	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
96D:	
Karlsborg	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
100B:	
Menahga	Acid soil Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
100C:	
Menahga	Acid soil 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
100D:	
Menahga	Acid soil 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
120B:	
Kost	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
127D:	
Amery	Acid soil Slope Dense layer Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wind erosion
Rosholt	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
127E:	
Amery	Acid soil Slope Dense layer Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
127E:	
Rosholt	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
151A:	
Bluffton	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
152A:	
Alstad	Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
154E:	
Cushing	Slope Potential for surface-water contamination Water erosion Wind erosion
156B:	
Magnor, very stony	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Magnor	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status
157B:	
Freeon, very stony	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Freeon	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
157C:	
Freeon, very stony	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Freeon	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status
160A:	
Oesterle	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
165B:	
Elderon	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Water erosion Wind erosion
185B:	
Tradelake	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
Taylor	Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
185C:	
Tradelake	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
Taylor	Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
185D:	
Tradelake	Slope Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
Taylor	Slope Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
185E:	
Tradelake	Slope Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
Taylor	Slope Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
189A:	
Siren	Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
193A:	
Minocqua	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
337A:	
Plover	Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
368B:	
Mahtomedi	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
368B:	
Cress	Acid soil Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Water erosion Wind erosion
368C:	
Mahtomedi	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
Cress	Acid soil 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
368D:	
Mahtomedi	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
Cress	Acid soil 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
368E:	
Mahtomedi	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

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
368E:	
Cress	Acid soil 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
380B:	
Cress	Acid soil Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Water erosion Wind erosion
Rosholt	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
380C:	
Cress	Acid soil 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
Rosholt	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
380D:	
Cress	Acid soil 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
Rosholt	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 soil name	Cropland management considerations
383B:	
Mahtomedi	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
383C:	
Mahtomedi	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
383D:	
Mahtomedi	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
392C:	
Rockmarsh	Slope Dense layer High content of organic matter Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface rock fragments Surface stones Wet soil moisture status
Dairyland	Slope Dense layer Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface rock fragments Surface stones Wet soil moisture status Wind erosion
Makwa	High content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface stones Wet soil moisture status
396B:	
Friendship	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
396B:	
Wurtsmith	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
Grayling	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
397A:	
Perchlake	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wet soil moisture status Wind erosion
399B:	
Grayling	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
399C:	
Grayling	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
399D:	
Grayling	Acid soil Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
406A:	
Loxley	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
407A:	
Seelyeville	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 soil name	Cropland management considerations
407A:	
Markey	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
410A:	
Seelyeville	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Cathro	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
419A:	
Seelyeville	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Cathro	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Markey	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
421A:	
Dora	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status
Markey	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Seelyeville	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 soil name	Cropland management considerations
422A:	
Seelyeville	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Cathro	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Rondeau	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status
426B:	
Emmert	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
Mahtomedi	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
Menahga	Acid soil Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
426C:	
Emmert	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
Mahtomedi	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
Menahga	Acid soil 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 soil name	Cropland management considerations
426D:	
Emmert	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
Mahtomedi	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
Menahga	Acid soil 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
430A:	
Freya	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status Wind erosion
439B:	
Graycalm	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
Menahga	Acid soil Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
439C:	
Graycalm	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 soil name	Cropland management considerations
439C:	
Menahga	Acid soil 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
439D:	
Graycalm	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
Menahga	Acid soil 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
442C:	
Haugen	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status Wind erosion
Greenwood	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
443D:	
Amery	Acid soil Slope Dense layer Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wind erosion
Greenwood	Excessive permeability 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 soil name	Cropland management considerations
459A:	
Loxley	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Daisybay	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Dawson	Acid soil Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
461A:	
Bowstring	Flooding Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
465A:	
Newson	Acid soil Excessive permeability High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Meehan	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
469E:	
Bigisland	Slope Dense layer Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface rock fragments Surface stones Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
469E:	
Milaca	Slope Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status Wind erosion
471B:	
Dairyland	Dense layer Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface rock fragments Surface stones Wet soil moisture status Wind erosion
Emmert	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Surface stones Wind erosion
471C:	
Dairyland	Dense layer Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface rock fragments Surface stones Water erosion Wet soil moisture status Wind erosion
Emmert	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
472A:	
Rockmarsh	Flooding Dense layer High content of organic matter Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface rock fragments Surface stones Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
472A:	
Clemens	Flooding Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface rock fragments Surface stones Wet soil moisture status
473A:	
Dairyland	Dense layer Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface rock fragments Surface stones Wet soil moisture status Wind erosion
Skog	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface stones Wind erosion
484A:	
Greenwood	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Beseman	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
485C:	
Lupton	High content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
Tawas	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
495B:	
Karlsborg	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status Wind erosion
Grettum	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Perida	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wind erosion
495C:	
Karlsborg	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
Grettum	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Perida	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wind erosion
495D:	
Karlsborg	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
495D:	
Grettum	Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Perida	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wind erosion
496B:	
Karlsborg	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status Wind erosion
496C:	
Karlsborg	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
496D:	
Karlsborg	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
497A:	
Meenon	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
521A:	
Dody	Excessive permeability High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status
523A:	
Nokasippi	Dense layer Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status
529B:	
Perida	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Restricted permeability Wind erosion
531A:	
Stengel	Excessive permeability Limited available water capacity Potential for ground-water contamination Restricted permeability Wet soil moisture status Wind erosion
542B:	
Haugen, very stony	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status Wind erosion
Haugen	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
542C:	
Haugen, very stony	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status Wind erosion
Haugen	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
544F:	
Menahga	Acid soil 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
Mahtomedi	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
553B:	
Branstad	Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
553C:	
Branstad	Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
553D:	
Branstad	Slope Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
555A:	
Fordum	Flooding Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
557B:	
Shawano	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
557C:	
Shawano	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
557D:	
Shawano	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
586A:	
Chelmo	Excessive permeability Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status
600A:	
Haplosaprists	Onsite investigation required
Psammaquents	Onsite investigation required
615B:	
Cress	Acid soil Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
615C:	
Cress	Acid soil 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
615D:	
Cress	Acid soil 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
620C:	
Lundeen	Acid soil Depth to rock Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion
Haustrup	Acid soil Depth to rock Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion
Rock outcrop	Not applicable
621A:	
Bjorkland	Acid soil Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status
623A:	
Capitola	High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Wet soil moisture status
624A:	
Ossmer	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 soil name	Cropland management considerations
631A:	
Giese	Acid soil Dense layer High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Wet soil moisture status
632A:	
Aftad	Potential for ground-water contamination Wet soil moisture status Wind erosion
632B:	
Aftad	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
632C:	
Aftad	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
634C:	
Drylanding	Depth to rock Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination
Beartree	Depth to rock High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Rock outcrop	Not applicable
635C:	
Drylanding	Depth to rock Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination
Beartree	Depth to rock High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Rock outcrop	Not applicable

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
648B:	
Sconsin	Dense layer Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status
669D:	
Fremstadt, stony	Slope Limited available water capacity Limited content of organic matter Potential for ground-water contamination Surface stones Water erosion Wind erosion
Pomroy	Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
671B:	
Spoonerhill, stony	Dense layer Limited available water capacity Limited content of organic matter Potential for ground-water contamination Surface stones Water erosion Wet soil moisture status
Spoonerhill	Dense layer Limited available water capacity Limited content of organic matter Potential for ground-water contamination Water erosion Wet soil moisture status
706A:	
Winterfield	Flooding Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Totagatic	Flooding Excessive permeability Limited available water capacity Limited 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 soil name	Cropland management considerations
715A:	
Mora	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Wet soil moisture status
717B:	
Milaca	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
717C:	
Milaca	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
720F:	
Haustrup	Acid soil Slope Depth to rock Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion
Lundeen	Acid soil Slope Depth to rock Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion
Rock outcrop	Not applicable
726B:	
Sissabagama	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
742B:	
Milaca	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
742C:	
Milaca	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status Wind erosion
742D:	
Milaca	Slope Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status Wind erosion
755A:	
Moppet	Acid soil Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
Fordum	Flooding Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
771A:	
Lenroot	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wet soil moisture status Wind erosion
812B:	
Mora	Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status Wind erosion
825A:	
Meehan	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
896A:	
Wurtsmith	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
980A:	
Soderbeck	Excessive permeability Limited available water capacity Potential for ground-water contamination Surface rock fragments Surface stones Wet soil moisture status
1070C:	
Fremstadt	Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion
Cress	Acid soil 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
1070D:	
Fremstadt	Slope Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion
Cress	Acid soil 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
1080B:	
Spoonerhill	Dense layer Limited available water capacity Limited content of organic matter Potential for ground-water contamination Water erosion Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
1080B:	
Spoonerhill, stony	Dense layer Limited available water capacity Limited content of organic matter Potential for ground-water contamination Surface stones Water erosion Wet soil moisture status
Cress	Acid soil Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Water erosion Wind erosion
2002:	
Udorthents, earthen dams	Not applicable
2015:	
Pits	Not applicable
2050:	
Landfill	Not applicable
3011A:	
Barronett	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
3082E:	
Braham	Slope Excessive permeability Limited content of organic matter Potential for ground-water contamination Water erosion Wind erosion
Shawano	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
3114A:	
Saprists	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Aquents	Acid soil Excessive permeability High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
3114A:	
Aquepts	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
3125A:	
Meehan	Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
3126A:	
Wurtsmith	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
3312B:	
Glendenning, very stony	Acid soil Dense layer Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Glendenning	Acid soil Dense layer Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status
3336A:	
Fenander	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
3403A:	
Loxley	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Beseman	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 soil name	Cropland management considerations
3403A:	
Dawson	Acid soil Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
3429B:	
Lara	Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status Wind erosion
3429C:	
Lara	Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status Wind erosion
3446A:	
Newson	Acid soil Excessive permeability High content of organic matter Limited available water capacity Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
3448B:	
Grettum	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
3448C:	
Grettum	Excessive permeability Limited available water capacity Potential for ground-water contamination Water erosion Wind erosion
3510B:	
Pomroy	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface stones Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
3510B:	
Fremstadt	Limited available water capacity Limited content of organic matter Potential for ground-water contamination Surface stones Wind erosion
Fremstadt, stony	Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
3510C:	
Pomroy	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wet soil moisture status Wind erosion
Fremstadt	Limited available water capacity Limited content of organic matter Potential for ground-water contamination Water erosion Wind erosion
Fremstadt, stony	Limited available water capacity Limited content of organic matter Potential for ground-water contamination Surface stones Water erosion Wind erosion
3511A:	
Bushville	Dense layer Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status Wind erosion
3516A:	
Slimlake	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
3625A:	
Lino	Acid soil Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wet soil moisture status Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
3626A:	
Crex	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Wet soil moisture status Wind erosion
3629B:	
Perida	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Restricted permeability Wind erosion
3636B:	
Plainbo	Depth to rock Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
3636C:	
Plainbo	Depth to rock Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Water erosion Wind erosion
M-W.	
Miscellaneous water	
W.	
Water	

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Yields for stony or very stony map units are based on the assumption that the stones have been removed. 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 soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
3A		---	---	---	---	---
Totagatic	7w					
Bowstring	7w					
Ausable	7w					
12A	7w	---	---	---	---	---
Makwa						
22A	2w	4.2	105	16.0	75	36
Comstock						
27A	2s	3.8	95	15.0	70	32
Scott Lake						
28B		3.4	85	14.0	65	28
Haugen, very stony	4s					
Haugen	2e					
Rosholt, very stony	4s					
Rosholt	2s					
28C		3.2	80	13.0	65	26
Haugen, very stony	6s					
Haugen	3e					
Rosholt, very stony	6s					
Rosholt	3e					
38A	2s	4.0	100	15.0	75	34
Rosholt						
38B	2s	3.8	95	15.0	70	32
Rosholt						
38C	3e	3.6	90	14.0	70	30
Rosholt						
38D	4e	3.4	85	14.0	65	28
Rosholt						
42D	6s	3.0	75	13.0	60	24
Amery						
43B	2e	3.8	95	15.0	70	32
Antigo						
43C	3e	3.6	90	14.0	70	30
Antigo						
63A	1	4.6	115	17.0	75	40
Crystal Lake						
63B	2e	4.4	110	16.0	75	38
Crystal Lake						
63C	3e	4.2	105	16.0	75	36
Crystal Lake						

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
64A		---	---	---	---	---
Totagatic	7w					
Winterfield	4w					
69C		2.0	40	9.0	35	14
Keweenaw	4s					
Sayner	6s					
Vilas	6s					
69E		---	---	---	---	---
Keweenaw	7s					
Sayner	7s					
Vilas	7s					
82B		3.8	95	15.0	70	32
Cutaway	2e					
Branstad	2e					
82C		3.6	90	14.0	70	30
Cutaway	3e					
Branstad	3e					
83A	3w	3.0	75	13.0	60	24
Smestad						
85B	3s	3.2	80	13.0	65	26
Taylor						
85C	3s	3.0	75	13.0	60	24
Taylor						
86A		3.2	80	13.0	65	26
Indus	6w					
Alango	2w					
89A	6w	---	---	---	---	---
Wildwood						
96B	3s	2.6	65	12.0	55	20
Karlsborg						
96C	4s	2.4	60	11.0	55	18
Karlsborg						
96D	6s	2.2	55	11.0	50	18
Karlsborg						
100B	4s	2.0	40	9.0	35	14
Menahga						
100C	6s	2.0	40	9.0	35	14
Menahga						
100D	7s	---	---	---	---	---
Menahga						
120B	4s	2.2	55	11.0	50	18
Kost						
127D		3.0	75	13.0	60	24
Amery	6s					
Rosholt	6s					

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
127E		---	---	---	---	---
Amery	7s					
Rosholt	7s					
151A	6w	---	---	---	---	---
Bluffton						
152A	2w	3.6	90	14.0	70	30
Alstad						
154E	6e	3.4	85	14.0	65	28
Cushing						
156B		3.4	85	14.0	65	28
Magnor, very stony	4s					
Magnor	2w					
157B		3.8	95	15.0	70	32
Freeon, very stony	4s					
Freeon	2e					
157C		3.6	90	14.0	70	30
Freeon, very stony	6s					
Freeon	3e					
160A	2w	3.4	85	14.0	65	28
Oesterle						
165B	4s	2.2	55	11.0	50	18
Elderon						
185B		3.4	85	14.0	65	28
Tradelake	2e					
Taylor	2e					
185C		3.2	80	13.0	65	26
Tradelake	3e					
Taylor	3e					
185D		3.0	75	13.0	60	24
Tradelake	4e					
Taylor	4e					
185E		2.8	70	12.0	60	---
Tradelake	6e					
Taylor	6e					
189A	2w	3.2	80	13.0	65	26
Siren						
193A	6w	---	---	---	---	---
Minocqua						
337A	2w	3.6	90	14.0	70	30
Plover						
368B		2.0	50	10.0	45	16
Mahtomedi	4s					
Cress	3s					
368C		2.0	45	10.0	40	16
Mahtomedi	6s					
Cress	4e					

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
368D		2.0	40	9.0	35	14
Mahtomedi	7s					
Cress	6e					
368E		2.0	35	9.0	30	---
Mahtomedi	7s					
Cress	7e					
380B		2.8	70	12.0	60	22
Cress	3s					
Rosholt	2s					
380C		2.6	65	12.0	55	20
Cress	4e					
Rosholt	3e					
380D		2.4	60	11.0	55	18
Cress	6e					
Rosholt	4e					
383B	4s	2.0	35	9.0	30	14
Mahtomedi						
383C	6s	2.0	30	8.0	25	12
Mahtomedi						
383D	7s	---	---	---	---	---
Mahtomedi						
392C		---	---	---	---	---
Rockmarsh	7s					
Dairyland	7s					
Makwa	6w					
396B		2.0	35	9.0	30	14
Friendship	4s					
Wurtsmith	4s					
Grayling	4s					
397A	4w	2.2	55	11.0	50	18
Perchlake						
399B	4s	2.0	35	9.0	30	14
Grayling						
399C	6s	2.0	30	8.0	25	12
Grayling						
399D	7s	---	---	---	---	---
Grayling						
406A	7w	---	---	---	---	---
Loxley						
407A		---	---	---	---	---
Seelyeville	7w					
Markey	7w					
410A		---	---	---	---	---
Seelyeville	7w					
Cathro	7w					

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
419A		---	---	---	---	---
Seelyeville	7w					
Cathro	7w					
Markey	7w					
421A		---	---	---	---	---
Dora	7w					
Markey	7w					
Seelyeville	7w					
422A		---	---	---	---	---
Seelyeville	7w					
Cathro	7w					
Rondeau	7w					
426B		2.0	40	9.0	35	14
Emmert	4s					
Mahtomedi	4s					
Menahga	4s					
426C		2.0	35	9.0	30	14
Emmert	6s					
Mahtomedi	6s					
Menahga	6s					
426D		---	---	---	---	---
Emmert	7s					
Mahtomedi	7s					
Menahga	7s					
430A	4w	2.6	65	12.0	55	20
Freya						
439B		2.0	50	10.0	45	16
Graycalm	4s					
Menahga	4s					
439C		2.0	45	10.0	40	16
Graycalm	6s					
Menahga	6s					
439D		---	---	---	---	---
Graycalm	7s					
Menahga	7s					
442C		3.2	80	13.0	65	26
Haugen	6s					
Greenwood	7w					
443D		3.0	75	13.0	60	24
Amery	7s					
Greenwood	7w					
459A		---	---	---	---	---
Loxley	7w					
Daisybay	7w					
Dawson	7w					
461A	7w	---	---	---	---	---
Bowstring						

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
465A		2.0	50	10.0	45	---
Newson	6w					
Meehan	4w					
469E		---	---	---	---	---
Bigisland	7s					
Milaca	7s					
471B		---	---	---	---	---
Dairyland	7s					
Emmert	7s					
471C		---	---	---	---	---
Dairyland	7s					
Emmert	7s					
472A		---	---	---	---	---
Rockmarsh	7s					
Clemens	7s					
473A		---	---	---	---	---
Dairyland	7s					
Skog	7s					
484A		---	---	---	---	---
Greenwood	7w					
Beseman	7w					
485C		---	---	---	---	---
Lupton	7w					
Tawas	7w					
495B		2.2	55	11.0	50	18
Karlsborg	3s					
Grettum	4s					
Perida	4s					
495C		2.0	50	10.0	45	16
Karlsborg	4s					
Grettum	6s					
Perida	6s					
495D		2.0	45	10.0	40	16
Karlsborg	6s					
Grettum	7s					
Perida	7s					
496B	3s	2.4	60	11.0	55	18
Karlsborg						
496C	4s	2.2	55	11.0	50	18
Karlsborg						
496D	6s	2.0	50	10.0	45	16
Karlsborg						
497A	4w	2.6	65	12.0	55	20
Meenon						
521A	6w	---	---	---	---	---
Dody						

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
523A---------- Nokasippi	6w	---	---	---	---	---
529B---------- Perida	4s	2.2	55	11.0	50	18
531A---------- Stengel	4w	2.4	60	11.0	55	18
542B----------		3.4	85	14.0	65	28
Haugen, very stony------	4s					
Haugen----------	2e					
542C----------		3.2	80	13.0	65	26
Haugen, very stony------	6s					
Haugen----------	3e					
544F----------		---	---	---	---	---
Menahga----------	7s					
Mahtomedi----------	7s					
553B---------- Branstad	2e	4.0	100	15.0	75	34
553C---------- Branstad	3e	3.8	95	15.0	70	32
553D---------- Branstad	4e	3.6	90	14.0	70	30
555A---------- Fordum	6w	---	---	---	---	---
557B---------- Shawano	4s	2.2	55	11.0	50	18
557C---------- Shawano	6s	2.0	50	10.0	45	16
557D---------- Shawano	7s	---	---	---	---	---
586A---------- Chelmo	6w	---	---	---	---	---
600A----------		---	---	---	---	---
Haplosaprists----------	6w					
Psammaquents----------	6w					
615B---------- Cress	3s	2.6	65	12.0	55	20
615C---------- Cress	4e	2.4	60	11.0	55	18
615D---------- Cress	6e	2.2	55	11.0	50	18
620C----------		2.6	65	12.0	55	---
Lundeen----------	6s					
Haustrup----------	6s					
Rock outcrop----------	8					

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
621A---------- Bjorkland	6w	---	---	---	---	---
623A---------- Capitola	7w	---	---	---	---	---
624A---------- Ossmer	2w	3.8	95	15.0	70	32
631A---------- Giese	6w	---	---	---	---	---
632A---------- Aftad	1	4.0	100	15.0	75	34
632B---------- Aftad	2e	3.8	95	15.0	70	32
632C---------- Aftad	3e	3.6	90	14.0	70	30
634C----------		---	---	---	---	---
Drylanding----------	7s					
Beartree----------	7w					
Rock outcrop----------	8					
635C----------		---	---	---	---	---
Drylanding----------	7s					
Beartree----------	7w					
Rock outcrop----------	8					
648B---------- Sconsin	2e	4.0	100	15.0	75	34
669D----------		2.0	50	10.0	45	16
Fremstadt----------	6e					
Pomroy----------	6e					
671B----------		2.6	65	12.0	55	20
Spoonerhill, stony------	3s					
Spoonerhill----------	3s					
706A----------		---	---	---	---	---
Winterfield----------	4w					
Totagatic----------	7w					
715A---------- Mora	4s	3.4	85	14.0	65	28
717B---------- Milaca	4s	3.6	90	14.0	70	30
717C---------- Milaca	6s	3.4	85	14.0	65	28
720F----------		---	---	---	---	---
Haustrup----------	6s					
Lundeen----------	6s					
Rock outcrop----------	8					
726B---------- Sissabagama	4s	2.4	60	11.0	55	18

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
742B---------- Milaca	4s	3.2	80	13.0	65	26
742C---------- Milaca	6s	3.0	75	13.0	60	24
742D---------- Milaca	6s	2.8	70	12.0	60	22
755A----------		---	---	---	---	---
Moppet----------	3w					
Fordum----------	6w					
771A---------- Lenroot	4s	2.0	50	10.0	45	16
812B---------- Mora	4s	3.0	75	13.0	60	24
825A---------- Meehan	4w	2.0	40	9.0	35	14
896A---------- Wurtsmith	4s	2.0	40	9.0	35	14
980A---------- Soderbeck	7s	---	---	---	---	---
1070C----------		2.2	55	11.0	50	18
Fremstadt----------	4e					
Cress----------	4e					
1070D----------		2.0	50	10.0	45	16
Fremstadt----------	6e					
Cress----------	6e					
1080B----------		2.4	60	11.0	55	18
Spoonerhill----------	3s					
Spoonerhill, stony------	3s					
Cress----------	3s					
2002. Udorthents, earthen dams						
2015. Pits						
2050. Landfill						
3011A---------- Barronett	6w	---	---	---	---	---
3082E----------		2.8	70	12.0	60	22
Braham----------	6e					
Shawano----------	7s					
3114A----------		---	---	---	---	---
Saprists----------	8w					
Aquents----------	8w					
Aquepts----------	8w					

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
3125A---------- Meehan	4w	2.0	50	10.0	45	16
3126A---------- Wurtsmith	4s	2.4	60	11.0	55	18
3312B----------		3.2	80	13.0	65	26
Glendenning, very stony	4s					
Glendenning----------	2w					
3336A---------- Fenander	6w	---	---	---	---	---
3403A----------		---	---	---	---	---
Loxley----------	7w					
Beseman----------	7w					
Dawson----------	7w					
3429B---------- Lara	3s	2.8	70	12.0	60	22
3429C---------- Lara	4e	2.6	65	12.0	55	20
3446A---------- Newson	6w	---	---	---	---	---
3448B---------- Grettum	4s	2.0	45	10.0	40	16
3448C---------- Grettum	6s	2.0	40	9.0	35	14
3510B----------		2.4	60	11.0	55	18
Pomroy----------	3e					
Fremstadt, stony--------	3s					
Fremstadt----------	3s					
3510C----------		2.2	55	11.0	50	18
Pomroy----------	4e					
Fremstadt----------	4s					
Fremstadt, stony--------	4s					
3511A---------- Bushville	2w	2.4	60	11.0	55	18
3516A---------- Slimlake	3s	2.6	65	12.0	55	20
3625A---------- Lino	4w	2.4	60	11.0	55	18
3626A---------- Crex	4s	2.2	55	11.0	50	18
3629B---------- Perida	4s	2.0	50	10.0	45	16
3636B---------- Plainbo	4s	2.0	40	9.0	35	---

Table 7a.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
3636C---------- Plainbo	6s	2.0	35	9.0	30	---
M-W. Miscellaneous water						
W. Water						

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Yields for stony or very stony map units are based on the assumption that the stones have been removed. 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 soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
3A		---	---	---	---	---
Totagatic	7w					
Bowstring	7w					
Ausable	7w					
12A	7w	---	---	---	---	---
Makwa						
22A	2w	2.8	3.6	3.8	3.2	3.4
Comstock						
27A	2s	2.4	3.2	3.4	2.8	3.0
Scott Lake						
28B		2.0	2.8	3.0	2.4	2.6
Haugen, very stony	4s					
Haugen	2e					
Rosholt, very stony	4s					
Rosholt	2s					
28C		1.8	2.6	2.8	2.2	2.4
Haugen, very stony	6s					
Haugen	3e					
Rosholt, very stony	6s					
Rosholt	3e					
38A	2s	2.6	3.4	3.6	3.0	3.2
Rosholt						
38B	2s	2.4	3.2	3.4	2.8	3.0
Rosholt						
38C	3e	2.2	3.0	3.2	2.6	2.8
Rosholt						
38D	4e	2.0	2.8	3.0	2.4	2.6
Rosholt						
42D	6s	1.6	2.4	2.6	2.0	2.2
Amery						
43B	2e	2.4	3.2	3.4	2.8	3.0
Antigo						
43C	3e	2.2	3.0	3.2	2.6	2.8
Antigo						
63A	1	3.2	4.0	4.2	3.6	3.8
Crystal Lake						
63B	2e	3.0	3.8	4.0	3.4	3.6
Crystal Lake						
63C	3e	2.8	3.6	3.8	3.2	3.4
Crystal Lake						

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
64A		---	---	---	---	---
Totagatic	7w					
Winterfield	4w					
69C		1.0	1.6	1.8	1.4	1.4
Keweenaw	4s					
Sayner	6s					
Vilas	6s					
69E		1.0	---	---	---	---
Keweenaw	7s					
Sayner	7s					
Vilas	7s					
82B		2.4	3.2	3.4	2.8	3.0
Cutaway	2e					
Branstad	2e					
82C		2.2	3.0	3.2	2.6	2.8
Cutaway	3e					
Branstad	3e					
83A	3w	1.6	2.4	2.6	2.0	2.2
Smestad						
85B	3s	1.8	2.6	2.8	2.2	2.4
Taylor						
85C	3s	1.6	2.4	2.6	2.0	2.2
Taylor						
86A		1.8	2.6	2.8	2.2	2.4
Indus	6w					
Alango	2w					
89A	6w	---	---	---	---	---
Wildwood						
96B	3s	1.2	2.0	2.2	1.6	1.8
Karlsborg						
96C	4s	1.0	1.8	2.0	1.4	1.6
Karlsborg						
96D	6s	1.0	1.6	1.8	1.4	1.4
Karlsborg						
100B	4s	1.0	1.6	1.8	1.4	1.4
Menahga						
100C	6s	1.0	1.6	1.8	1.4	1.4
Menahga						
100D	7s	---	---	---	---	---
Menahga						
120B	4s	1.0	1.6	1.8	1.4	1.4
Kost						
127D		1.6	2.4	2.6	2.0	2.2
Amery	6s					
Rosholt	6s					

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
127E		---	---	---	---	---
Amery	7s					
Rosholt	7s					
151A	6w	---	---	---	---	---
Bluffton						
152A	2w	2.2	3.0	3.2	2.6	2.8
Alstad						
154E	6e	2.0	2.8	3.0	2.4	2.6
Cushing						
156B		2.0	2.8	3.0	2.4	2.6
Magnor, very stony	4s					
Magnor	2w					
157B		2.4	3.2	3.4	2.8	3.0
Freeon, very stony	4s					
Freeon	2e					
157C		2.2	3.0	3.2	2.6	2.8
Freeon, very stony	6s					
Freeon	3e					
160A	2w	2.0	2.8	3.0	2.4	2.6
Oesterle						
165B	4s	1.0	1.6	1.8	1.4	1.4
Elderon						
185B		2.0	2.8	3.0	2.4	2.6
Tradelake	2e					
Taylor	2e					
185C		1.8	2.6	2.8	2.2	2.4
Tradelake	3e					
Taylor	3e					
185D		1.6	2.4	2.6	2.0	2.2
Tradelake	4e					
Taylor	4e					
185E		1.4	2.2	2.4	1.8	2.0
Tradelake	6e					
Taylor	6e					
189A	2w	1.8	2.6	2.8	2.2	2.4
Siren						
193A	6w	1.0	---	---	---	---
Minocqua						
337A	2w	2.2	3.0	3.2	2.6	2.8
Plover						
368B		1.0	1.6	1.8	1.4	1.4
Mahtomedi	4s					
Cress	3s					

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
368C		1.0	1.6	1.8	1.4	1.4
Mahtomedi	6s					
Cress	4e					
368D		1.0	1.6	1.8	1.4	1.4
Mahtomedi	7s					
Cress	6e					
368E		1.0	1.6	1.8	1.4	1.4
Mahtomedi	7s					
Cress	7e					
380B		1.4	2.2	2.4	1.8	2.0
Cress	3s					
Rosholt	2s					
380C		1.2	2.0	2.2	1.6	1.8
Cress	4e					
Rosholt	3e					
380D		1.2	1.8	2.0	1.4	1.6
Cress	6e					
Rosholt	4e					
383B	4s	1.0	1.6	1.8	1.4	1.4
Mahtomedi						
383C	6s	1.0	1.6	1.8	1.4	1.4
Mahtomedi						
383D	7s	1.0	---	---	---	---
Mahtomedi						
392C		---	---	---	---	---
Rockmarsh	7s					
Dairyland	7s					
Makwa	6w					
396B		1.0	1.6	1.8	1.4	1.4
Friendship	4s					
Wurtsmith	4s					
Grayling	4s					
397A	4w	1.0	1.6	1.8	1.4	1.4
Perchlake						
399B	4s	1.0	1.6	1.8	1.4	1.4
Grayling						
399C	6s	1.0	1.6	1.8	1.4	1.4
Grayling						
399D	7s	1.0	---	---	---	---
Grayling						
406A	7w	---	---	---	---	---
Loxley						
407A		---	---	---	---	---
Seelyeville	7w					
Markey	7w					

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
410A		---	---	---	---	---
Seelyeville	7w					
Cathro	7w					
419A		---	---	---	---	---
Seelyeville	7w					
Cathro	7w					
Markey	7w					
421A		---	---	---	---	---
Dora	7w					
Markey	7w					
Seelyeville	7w					
422A		---	---	---	---	---
Seelyeville	7w					
Cathro	7w					
Rondeau	7w					
426B		1.0	1.6	1.8	1.4	1.4
Emmert	4s					
Mahtomedi	4s					
Menahga	4s					
426C		1.0	1.6	1.8	1.4	1.4
Emmert	6s					
Mahtomedi	6s					
Menahga	6s					
426D		1.0	---	---	---	---
Emmert	7s					
Mahtomedi	7s					
Menahga	7s					
430A	4w	1.2	2.0	2.2	1.6	1.8
Freya						
439B		1.0	1.6	1.8	1.4	1.4
Graycalm	4s					
Menahga	4s					
439C		1.0	1.6	1.8	1.4	1.4
Graycalm	6s					
Menahga	6s					
439D		1.0	---	---	---	---
Graycalm	7s					
Menahga	7s					
442C		1.8	2.6	2.8	2.2	2.4
Haugen	6s					
Greenwood	7w					
443D		1.6	2.4	2.6	2.0	2.2
Amery	7s					
Greenwood	7w					
459A		---	---	---	---	---
Loxley	7w					
Daisybay	7w					
Dawson	7w					

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
461A---------- Bowstring	7w	---	---	---	---	---
465A----------		1.0	1.6	1.8	1.4	1.4
Newson----------	6w					
Meehan----------	4w					
469E----------		---	---	---	---	---
Bigisland----------	7s					
Milaca----------	7s					
471B----------		---	---	---	---	---
Dairyland----------	7s					
Emmert----------	7s					
471C----------		---	---	---	---	---
Dairyland----------	7s					
Emmert----------	7s					
472A----------		---	---	---	---	---
Rockmarsh----------	7s					
Clemens----------	7s					
473A----------		---	---	---	---	---
Dairyland----------	7s					
Skog----------	7s					
484A----------		---	---	---	---	---
Greenwood----------	7w					
Beseman----------	7w					
485C----------		---	---	---	---	---
Lupton----------	7w					
Tawas----------	7w					
495B----------		1.0	1.6	1.8	1.4	1.4
Karlsborg----------	3s					
Grettum----------	4s					
Perida----------	4s					
495C----------		1.0	1.6	1.8	1.4	1.4
Karlsborg----------	4s					
Grettum----------	6s					
Perida----------	6s					
495D----------		1.0	1.6	1.8	1.4	1.4
Karlsborg----------	6s					
Grettum----------	7s					
Perida----------	7s					
496B---------- Karlsborg	3s	1.0	1.8	2.0	1.4	1.6
496C---------- Karlsborg	4s	1.0	1.6	1.8	1.4	1.4
496D---------- Karlsborg	6s	1.0	1.6	1.8	1.4	1.4
497A---------- Meenon	4w	1.2	2.0	2.2	1.6	1.8

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
521A---------- Dody	6w	---	---	---	---	---
523A---------- Nokasippi	6w	---	---	---	---	---
529B---------- Perida	4s	1.0	1.6	1.8	1.4	1.4
531A---------- Stengel	4w	1.0	1.8	2.0	1.4	1.6
542B----------		2.0	2.8	3.0	2.4	2.6
Haugen, very stony------	4s					
Haugen----------	2e					
542C----------		1.8	2.6	2.8	2.2	2.4
Haugen, very stony------	6s					
Haugen----------	3e					
544F----------		1.0	---	---	---	---
Menahga----------	7s					
Mahtomedi----------	7s					
553B---------- Branstad	2e	2.6	3.4	3.6	3.0	3.2
553C---------- Branstad	3e	2.4	3.2	3.4	2.8	3.0
553D---------- Branstad	4e	2.2	3.0	3.2	2.6	2.8
555A---------- Fordum	6w	1.0	---	---	---	---
557B---------- Shawano	4s	1.0	1.6	1.8	1.4	1.4
557C---------- Shawano	6s	1.0	1.6	1.8	1.4	1.4
557D---------- Shawano	7s	---	---	---	---	---
586A---------- Chelmo	6w	---	---	---	---	---
600A----------		---	---	---	---	---
Haplosaprists----------	6w					
Psammaquents----------	6w					
615B---------- Cress	3s	1.2	2.0	2.2	1.6	1.8
615C---------- Cress	4e	1.0	1.8	2.0	1.4	1.6
615D---------- Cress	6e	1.0	1.6	1.8	1.4	1.4

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
620C		1.2	2.0	2.2	1.6	1.8
Lundeen	6s					
Haustrup	6s					
Rock outcrop	8					
621A	6w	---	---	---	---	---
Bjorkland						
623A	7w	1.2	---	---	---	---
Capitola						
624A	2w	2.4	3.2	3.4	2.8	3.0
Ossmer						
631A	6w	---	---	---	---	---
Giese						
632A	1	2.6	3.4	3.6	3.0	3.2
Aftad						
632B	2e	2.4	3.2	3.4	2.8	3.0
Aftad						
632C	3e	2.2	3.0	3.2	2.6	2.8
Aftad						
634C		---	---	---	---	---
Drylanding	7s					
Beartree	7w					
Rock outcrop	8					
635C		---	---	---	---	---
Drylanding	7s					
Beartree	7w					
Rock outcrop	8					
648B	2e	2.6	3.4	3.6	3.0	3.2
Sconsin						
669D		1.0	1.6	1.8	1.4	1.4
Fremstadt	6e					
Pomroy	6e					
671B		1.2	2.0	2.2	1.6	1.8
Spoonerhill, stony	3s					
Spoonerhill	3s					
706A		---	---	---	---	---
Winterfield	4w					
Totagatic	7w					
715A	4s	2.0	2.8	3.0	2.4	2.6
Mora						
717B	4s	2.2	3.0	3.2	2.6	2.8
Milaca						
717C	6s	2.0	2.8	3.0	2.4	2.6
Milaca						

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
720F		---	---	---	---	---
Haustrup	6s					
Lundeen	6s					
Rock outcrop	8					
726B Sissabagama	4s	1.0	1.8	2.0	1.4	1.6
742B Milaca	4s	1.8	2.6	2.8	2.2	2.4
742C Milaca	6s	1.6	2.4	2.6	2.0	2.2
742D Milaca	6s	1.4	2.2	2.4	1.8	2.0
755A		1.6	---	---	---	---
Moppet	3w					
Fordum	6w					
771A Lenroot	4s	1.0	1.6	1.8	1.4	1.4
812B Mora	4s	1.6	2.4	2.6	2.0	2.2
825A Meehan	4w	1.0	1.6	1.8	1.4	1.4
896A Wurtsmith	4s	1.0	1.6	1.8	1.4	1.4
980A Soderbeck	7s	---	---	---	---	---
1070C		1.0	1.6	1.8	1.4	1.4
Fremstadt	4e					
Cress	4e					
1070D		1.0	1.6	1.8	1.4	1.4
Fremstadt	6e					
Cress	6e					
1080B		1.0	1.8	2.0	1.4	1.6
Spoonerhill	3s					
Spoonerhill, stony	3s					
Cress	3s					
2002. Udorthents, earthen dams						
2015. Pits						
2050. Landfill						
3011A Barronett	6w	1.4	---	---	---	---

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
3082E		1.4	2.2	2.4	1.8	2.0
Braham	6e					
Shawano	7s					
3114A		---	---	---	---	---
Saprists	8w					
Aquents	8w					
Aquepts	8w					
3125A	4w	1.0	1.6	1.8	1.4	1.4
Meehan						
3126A	4s	1.0	1.8	2.0	1.4	1.6
Wurtsmith						
3312B		1.8	2.6	2.8	2.2	2.4
Glendenning, very stony	4s					
Glendenning	2w					
3336A	6w	2.0	---	---	---	---
Fenander						
3403A		---	---	---	---	---
Loxley	7w					
Beseman	7w					
Dawson	7w					
3429B	3s	1.4	2.2	2.4	1.8	2.0
Lara						
3429C	4e	1.2	2.0	2.2	1.6	1.8
Lara						
3446A	6w	---	---	---	---	---
Newson						
3448B	4s	1.0	1.6	1.8	1.4	1.4
Grettum						
3448C	6s	1.0	1.6	1.8	1.4	1.4
Grettum						
3510B		1.0	1.8	2.0	1.4	1.6
Pomroy	3e					
Fremstadt, stony	3s					
Fremstadt	3s					
3510C		1.0	1.6	1.8	1.4	1.4
Pomroy	4e					
Fremstadt	4s					
Fremstadt, stony	4s					
3511A	2w	1.0	1.8	2.0	1.4	1.6
Bushville						
3516A	3s	1.2	2.0	2.2	1.6	1.8
Slimlake						
3625A	4w	1.0	1.8	2.0	1.4	1.6
Lino						
3626A	4s	1.0	1.6	1.8	1.4	1.4
Crex						

Table 7b.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bluegrass-white clover	Orchard-grass-alsike	Orchard-grass-red clover	Red clover hay	Timothy-alsike
		Tons	Tons	Tons	Tons	Tons
3629B---------- Perida	4s	1.0	1.6	1.8	1.4	1.4
3636B---------- Plainbo	4s	1.0	1.6	1.8	1.4	1.4
3636C---------- Plainbo	6s	1.0	1.6	1.8	1.4	1.4
M-W. Miscellaneous water						
W. Water						

Table 8.--Prime Farmland

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland)

Map symbol	Map unit name
22A	Comstock silt loam, 0 to 3 percent slopes
27A	Scott Lake sandy loam, 0 to 3 percent slopes
28B	Haugen-Rosholt complex, 2 to 6 percent slopes, very stony
38A	Rosholt sandy loam, 0 to 2 percent slopes
38B	Rosholt sandy loam, 2 to 6 percent slopes
43B	Antigo silt loam, 1 to 6 percent slopes
63A	Crystal Lake silt loam, 0 to 2 percent slopes
63B	Crystal Lake silt loam, 2 to 6 percent slopes
82B	Cutaway-Branstad complex, 1 to 6 percent slopes
83A	Smestad loamy fine sand, 0 to 3 percent slopes
85B	Taylor loam, 2 to 6 percent slopes
86A	Indus-Alango complex, 0 to 2 percent slopes
89A	Wildwood muck, 0 to 1 percent slopes
151A	Bluffton loam, 0 to 2 percent slopes
152A	Alstad loam, 0 to 3 percent slopes
156B	Magnor, very stony-Magnor complex, 0 to 4 percent slopes
157B	Freeon, very stony-Freeon complex, 2 to 6 percent slopes
160A	Oesterle sandy loam, 0 to 2 percent slopes
185B	Tradelake-Taylor complex, 1 to 6 percent slopes
189A	Siren loam, 0 to 3 percent slopes
193A	Minocqua muck, 0 to 2 percent slopes
337A	Plover fine sandy loam, 0 to 3 percent slopes
542B	Haugen, very stony-Haugen complex, 2 to 6 percent slopes
553B	Branstad fine sandy loam, 2 to 6 percent slopes
621A	Bjorkland peat, 0 to 2 percent slopes
623A	Capitola muck, 0 to 2 percent slopes, very stony
624A	Ossmer silt loam, 0 to 3 percent slopes
631A	Giese muck, 0 to 1 percent slopes, very stony
632A	Aftad fine sandy loam, 0 to 2 percent slopes
632B	Aftad fine sandy loam, 2 to 6 percent slopes
648B	Sconsin silt loam, 1 to 6 percent slopes
715A	Mora silt loam, 0 to 3 percent slopes, very stony
717B	Milaca silt loam, 3 to 6 percent slopes, very stony
742B	Milaca sandy loam, 2 to 6 percent slopes, very stony
812B	Mora sandy loam, 0 to 4 percent slopes, very stony
3011A	Barronett silt loam, 0 to 2 percent slopes
3312B	Glendenning, very stony-Glendenning complex, 0 to 4 percent slopes
3336A	Fenander fine sandy loam, 0 to 2 percent slopes

Table 9.--Conservation Tree/Shrub Suitability Groups

(Absence of an entry indicates that a conservation tree/shrub suitability group is not assigned)

Map symbol and soil name	Conservation tree/shrub suitability group
3A:	
Totagatic	10
Bowstring	10
Ausable	10
12A:	
Makwa	10
22A:	
Comstock	10
27A:	
Scott Lake	6GA
28B:	
Haugen, very stony	2A
Haugen	2A
Rosholt, very stony	6GA
Rosholt	6GA
28C:	
Haugen, very stony	2A
Haugen	2A
Rosholt, very stony	6GA
Rosholt	6GA
38A:	
Rosholt	6GA
38B:	
Rosholt	6GA
38C:	
Rosholt	6GA
38D:	
Rosholt	6GA
42D:	
Amery	4A
43B:	
Antigo	6GA
43C:	
Antigo	6GA
63A:	
Crystal Lake	2A

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
63B:	
Crystal Lake	2A
63C:	
Crystal Lake	2A
64A:	
Totagatic	10
Winterfield	10
69C:	
Keweenaw	4A
Sayner	7A
Vilas	7A
69E:	
Keweenaw	4A
Sayner	7A
Vilas	7A
82B:	
Cutaway	1
Branstad	1
82C:	
Cutaway	1
Branstad	1
83A:	
Smestad	2H
85B:	
Taylor	1
85C:	
Taylor	1
86A:	
Indus	10
Alango	10
89A:	
Wildwood	10
96B:	
Karlsborg	2A
96C:	
Karlsborg	2A
96D:	
Karlsborg	2A
100B:	
Menahga	7A

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
100C:	
Menahga	7A
100D:	
Menahga	7A
120B:	
Kost	7A
127D:	
Amery	4A
Rosholt	6GA
127E:	
Amery	4A
Rosholt	6GA
151A:	
Bluffton	10
152A:	
Alstad	10
154E:	
Cushing	2
156B:	
Magnor, very stony	10
Magnor	10
157B:	
Freeon, very stony	2A
Freeon	2A
157C:	
Freeon, very stony	2A
Freeon	2A
160A:	
Oesterle	10
165B:	
Elderon	6
185B:	
Tradelake	1
Taylor	1
185C:	
Tradelake	1
Taylor	1
185D:	
Tradelake	1
Taylor	1

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
185E:	
Tradelake	1
Taylor	1
189A:	
Siren	10
193A:	
Minocqua	10
337A:	
Plover	10
368B:	
Mahtomedi	7A
Cress	6GA
368C:	
Mahtomedi	7A
Cress	6GA
368D:	
Mahtomedi	7A
Cress	6GA
368E:	
Mahtomedi	7A
Cress	6GA
380B:	
Cress	6GA
Rosholt	6GA
380C:	
Cress	6GA
Rosholt	6GA
380D:	
Cress	6GA
Rosholt	6GA
383B:	
Mahtomedi	7A
383C:	
Mahtomedi	7A
383D:	
Mahtomedi	7A
392C:	
Rockmarsh	10
Dairyland	2
Makwa	10

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
396B:	
Friendship	1A
Wurtsmith	2A
Grayling	7A
397A:	
Perchlake	10
399B:	
Grayling	7A
399C:	
Grayling	7A
399D:	
Grayling	7A
406A:	
Loxley	10
407A:	
Seelyeville	10
Markey	10
410A:	
Seelyeville	10
Cathro	10
419A:	
Seelyeville	10
Cathro	10
Markey	10
421A:	
Dora	10
Markey	10
Seelyeville	10
422A:	
Seelyeville	10
Cathro	10
Rondeau	10
426B:	
Emmert	10
Mahtomedi	7A
Menahga	7A

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
426C:	
Emmert	10
Mahtomedi	7A
Menahga	7A
426D:	
Emmert	10
Mahtomedi	7A
Menahga	7A
430A:	
Freya	10
439B:	
Graycalm	7A
Menahga	7A
439C:	
Graycalm	7A
Menahga	7A
439D:	
Graycalm	7A
Menahga	7A
442C:	
Haugen	2A
Greenwood	10
443D:	
Amery	4A
Greenwood	10
459A:	
Loxley	10
Daisybay	10
Dawson	10
461A:	
Bowstring	10
465A:	
Newson	10
Meehan	10
469E:	
Bigisland	6
Milaca	2

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
471B:	
Dairyland	2
Emmert	10
471C:	
Dairyland	2
Emmert	10
472A:	
Rockmarsh	10
Clemens	10
473A:	
Dairyland	2
Skog	2
484A:	
Greenwood	10
Beseman	10
485C:	
Lupton	10
Tawas	10
495B:	
Karlsborg	2A
Grettum	1A
Perida	1A
495C:	
Karlsborg	2A
Grettum	1A
Perida	1A
495D:	
Karlsborg	2A
Grettum	1A
Perida	1A
496B:	
Karlsborg	2A
496C:	
Karlsborg	2A
496D:	
Karlsborg	2A
497A:	
Meenon	10

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
521A:	
Dody	10
523A:	
Nokasippi	10
529B:	
Perida	2A
531A:	
Stengel	10
542B:	
Haugen, very stony	2A
Haugen	2A
542C:	
Haugen, very stony	2A
Haugen	2A
544F:	
Menahga	7A
Mahtomedi	7A
553B:	
Branstad	1
553C:	
Branstad	1
553D:	
Branstad	1
555A:	
Fordum	10
557B:	
Shawano	7A
557C:	
Shawano	7A
557D:	
Shawano	7A
586A:	
Chelmo	10
600A:	
Haplosaprists	10
Psammaquents	10
615B:	
Cress	6GA
615C:	
Cress	6GA

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
615D:	
Cress	6GA
620C:	
Lundeen	5A
Haustrup	10
Rock outcrop.	
621A:	
Bjorkland	10
623A:	
Capitola	10
624A:	
Ossmer	10
631A:	
Giese	10
632A:	
Aftad	2A
632B:	
Aftad	2A
632C:	
Aftad	2A
634C:	
Drylanding	10
Beartree	10
Rock outcrop.	
635C:	
Drylanding	10
Beartree	10
Rock outcrop.	
648B:	
Sconsin	2A
669D:	
Fremstadt, stony	4A
Pomroy	2A
671B:	
Spoonerhill, stony	2A
Spoonerhill	2A
706A:	
Winterfield	10
Totagatic	10

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
715A:	
Mora	10
717B:	
Milaca	2
717C:	
Milaca	2
720F:	
Haustrup	10
Lundeen	5A
Rock outcrop.	
726B:	
Sissabagama	2A
742B:	
Milaca	2
742C:	
Milaca	2
742D:	
Milaca	2
755A:	
Moppet	2A
Fordum	10
771A:	
Lenroot	2A
812B:	
Mora	10
825A:	
Meehan	10
896A:	
Wurtsmith	2A
980A:	
Soderbeck	10
1070C:	
Fremstadt	4A
Cress	6GA
1070D:	
Fremstadt	4A
Cress	6GA

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
1080B:	
Spoonerhill	2A
Spoonerhill, stony	2A
Cress	6GA
2002. Udorthents, earthen dams	
2015. Pits	
2050. Landfill	
3011A:	
Barronett	10
3082E:	
Braham	4
Shawano	7A
3114A:	
Saprists	10
Aquents	10
Aquepts	10
3125A:	
Meehan	10
3126A:	
Wurtsmith	2A
3312B:	
Glendenning, very stony	10
Glendenning	10
3336A:	
Fenander	10
3403A:	
Loxley	10
Beseman	10
Dawson	10
3429B:	
Lara	2
3429C:	
Lara	2
3446A:	
Newson	10

Table 9.--Conservation Tree/Shrub Suitability Groups--Continued

Map symbol and soil name	Conservation tree/shrub suitability group
3448B:	
Grettum	1A
3448C:	
Grettum	1A
3510B:	
Pomroy	2A
Fremstadt	4A
Fremstadt, stony	4A
3510C:	
Pomroy	2A
Fremstadt	4A
Fremstadt, stony	4A
3511A:	
Bushville	10
3516A:	
Slimlake	6GA
3625A:	
Lino	10
3626A:	
Crex	7A
3629B:	
Perida	2A
3636B:	
Plainbo	6A
3636C:	
Plainbo	6A
M-W.	
Miscellaneous water	
W.	
Water	

Table 10.--Forest Land Harvest Equipment Considerations

(See text for a description of the considerations listed in this table)

Map symbol and soil name	Forest land harvest equipment considerations
3A:	
Totagatic	Flooding Wetness Susceptible to rutting and wheel slippage Poor traction (loose sandy material)
Bowstring	Flooding Wetness Susceptible to rutting and wheel slippage
Ausable	Flooding Wetness Susceptible to rutting and wheel slippage Poor traction (loose sandy material)
12A:	
Makwa	Flooding Wetness Susceptible to rutting and wheel slippage
22A:	
Comstock	Wetness Susceptible to rutting and wheel slippage
27A:	
Scott Lake	No major considerations
28B:	
Haugen, very stony	Wetness
Haugen	Wetness
Rosholt, very stony	No major considerations
Rosholt	No major considerations
28C:	
Haugen, very stony	Wetness
Haugen	Wetness
Rosholt, very stony	No major considerations
Rosholt	No major considerations
38A:	
Rosholt	No major considerations
38B:	
Rosholt	No major considerations
38C:	
Rosholt	No major considerations
38D:	
Rosholt	Slope
42D:	
Amery	Slope

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
43B:	
Antigo	No major considerations
43C:	
Antigo	No major considerations
63A:	
Crystal Lake	Wetness Susceptible to rutting and wheel slippage
63B:	
Crystal Lake	Wetness Susceptible to rutting and wheel slippage
63C:	
Crystal Lake	Wetness Susceptible to rutting and wheel slippage
64A:	
Totagatic	Flooding Wetness Susceptible to rutting and wheel slippage Poor traction (loose sandy material)
Winterfield	Flooding Wetness Poor traction (loose sandy material)
69C:	
Keweenaw	Poor traction (loose sandy material)
Sayner	Poor traction (loose sandy material)
Vilas	Poor traction (loose sandy material)
69E:	
Keweenaw	Slope Poor traction (loose sandy material)
Sayner	Slope Poor traction (loose sandy material)
Vilas	Slope Poor traction (loose sandy material)
82B:	
Cutaway	Poor traction (loose sandy material)
Branstad	Susceptible to rutting and wheel slippage
82C:	
Cutaway	Poor traction (loose sandy material)
Branstad	Susceptible to rutting and wheel slippage
83A:	
Smestad	Wetness Poor traction (loose sandy material)
85B:	
Taylor	Wetness Susceptible to rutting and wheel slippage

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
85C:	
Taylor	Wetness Susceptible to rutting and wheel slippage
86A:	
Indus	Wetness Susceptible to rutting and wheel slippage
Alango	Wetness Susceptible to rutting and wheel slippage
89A:	
Wildwood	Wetness Susceptible to rutting and wheel slippage
96B:	
Karlsborg	Wetness Poor traction (loose sandy material)
96C:	
Karlsborg	Wetness Poor traction (loose sandy material)
96D:	
Karlsborg	Slope Wetness Poor traction (loose sandy material)
100B:	
Menahga	Poor traction (loose sandy material)
100C:	
Menahga	Poor traction (loose sandy material)
100D:	
Menahga	Slope Poor traction (loose sandy material)
120B:	
Kost	Poor traction (loose sandy material)
127D:	
Amery	Slope
Rosholt	Slope
127E:	
Amery	Slope
Rosholt	Slope
151A:	
Bluffton	Wetness Susceptible to rutting and wheel slippage
152A:	
Alstad	Wetness Susceptible to rutting and wheel slippage
154E:	
Cushing	Slope Susceptible to rutting and wheel slippage

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
156B:	
Magnor, very stony	Wetness
Magnor	Wetness
157B:	
Freeon, very stony	Wetness
Freeon	Wetness
157C:	
Freeon, very stony	Wetness
Freeon	Wetness
160A:	
Oesterle	Wetness
165B:	
Elderon	No major considerations
185B:	
Tradelake	Wetness
Taylor	Wetness Susceptible to rutting and wheel slippage
185C:	
Tradelake	Wetness
Taylor	Wetness Susceptible to rutting and wheel slippage
185D:	
Tradelake	Slope Wetness
Taylor	Slope Wetness Susceptible to rutting and wheel slippage
185E:	
Tradelake	Slope Wetness
Taylor	Slope Wetness Susceptible to rutting and wheel slippage
189A:	
Siren	Wetness Susceptible to rutting and wheel slippage
193A:	
Minocqua	Wetness Susceptible to rutting and wheel slippage
337A:	
Plover	Wetness
368B:	
Mahtomedi	Poor traction (loose sandy material)
Cress	No major considerations

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
368C:	
Mahtomedi	Poor traction (loose sandy material)
Cress	No major considerations
368D:	
Mahtomedi	Slope Poor traction (loose sandy material)
Cress	Slope
368E:	
Mahtomedi	Slope Poor traction (loose sandy material)
Cress	Slope
380B:	
Cress	No major considerations
Rosholt	No major considerations
380C:	
Cress	No major considerations
Rosholt	No major considerations
380D:	
Cress	Slope
Rosholt	Slope
383B:	
Mahtomedi	Poor traction (loose sandy material)
383C:	
Mahtomedi	Poor traction (loose sandy material)
383D:	
Mahtomedi	Slope Poor traction (loose sandy material)
392C:	
Rockmarsh	Slope Wetness Susceptible to rutting and wheel slippage
Dairyland	Slope Wetness
Makwa	Wetness Susceptible to rutting and wheel slippage
396B:	
Friendship	Poor traction (loose sandy material)
Wurtsmith	Poor traction (loose sandy material)
Grayling	Poor traction (loose sandy material)
397A:	
Perchlake	Wetness Poor traction (loose sandy material)

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
399B:	
Grayling	Poor traction (loose sandy material)
399C:	
Grayling	Poor traction (loose sandy material)
399D:	
Grayling	Slope Poor traction (loose sandy material)
406A:	
Loxley	Wetness Susceptible to rutting and wheel slippage
407A:	
Seelyeville	Wetness Susceptible to rutting and wheel slippage
Markey	Wetness Susceptible to rutting and wheel slippage
410A:	
Seelyeville	Wetness Susceptible to rutting and wheel slippage
Cathro	Wetness Susceptible to rutting and wheel slippage
419A:	
Seelyeville	Wetness Susceptible to rutting and wheel slippage
Cathro	Wetness Susceptible to rutting and wheel slippage
Markey	Wetness Susceptible to rutting and wheel slippage
421A:	
Dora	Wetness Susceptible to rutting and wheel slippage
Markey	Wetness Susceptible to rutting and wheel slippage
Seelyeville	Wetness Susceptible to rutting and wheel slippage
422A:	
Seelyeville	Wetness Susceptible to rutting and wheel slippage
Cathro	Wetness Susceptible to rutting and wheel slippage
Rondeau	Wetness Susceptible to rutting and wheel slippage
426B:	
Emmert	Poor traction (loose sandy material)
Mahtomedi	Poor traction (loose sandy material)
Menahga	Poor traction (loose sandy material)

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
426C:	
Emmert	Poor traction (loose sandy material)
Mahtomedi	Poor traction (loose sandy material)
Menahga	Poor traction (loose sandy material)
426D:	
Emmert	Slope Poor traction (loose sandy material)
Mahtomedi	Slope Poor traction (loose sandy material)
Menahga	Slope Poor traction (loose sandy material)
430A:	
Freya	Wetness Poor traction (loose sandy material)
439B:	
Graycalm	Poor traction (loose sandy material)
Menahga	Poor traction (loose sandy material)
439C:	
Graycalm	Poor traction (loose sandy material)
Menahga	Poor traction (loose sandy material)
439D:	
Graycalm	Slope Poor traction (loose sandy material)
Menahga	Slope Poor traction (loose sandy material)
442C:	
Haugen	Wetness
Greenwood	Wetness Susceptible to rutting and wheel slippage
443D:	
Amery	Slope
Greenwood	Wetness Susceptible to rutting and wheel slippage
459A:	
Loxley	Wetness Susceptible to rutting and wheel slippage
Daisybay	Wetness Susceptible to rutting and wheel slippage
Dawson	Wetness Susceptible to rutting and wheel slippage
461A:	
Bowstring	Flooding Wetness Susceptible to rutting and wheel slippage

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
465A:	
Newson	Wetness Susceptible to rutting and wheel slippage Poor traction (loose sandy material)
Meehan	Wetness Poor traction (loose sandy material)
469E:	
Bigisland	Slope Susceptible to rutting and wheel slippage
Milaca	Slope Wetness
471B:	
Dairyland	Wetness
Emmert	No major considerations
471C:	
Dairyland	Wetness
Emmert	Poor traction (loose sandy material)
472A:	
Rockmarsh	Flooding Wetness Susceptible to rutting and wheel slippage
Clemens	Flooding Wetness Susceptible to rutting and wheel slippage
473A:	
Dairyland	Wetness
Skog	No major considerations
484A:	
Greenwood	Wetness Susceptible to rutting and wheel slippage
Beseman	Wetness Susceptible to rutting and wheel slippage
485C:	
Lupton	Wetness Susceptible to rutting and wheel slippage
Tawas	Wetness Susceptible to rutting and wheel slippage
495B:	
Karlsborg	Wetness Poor traction (loose sandy material)
Grettum	Poor traction (loose sandy material)
Perida	Wetness Poor traction (loose sandy material)

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
495C:	
Karlsborg	Wetness Poor traction (loose sandy material)
Grettum	Poor traction (loose sandy material)
Perida	Wetness Poor traction (loose sandy material)
495D:	
Karlsborg	Slope Wetness Poor traction (loose sandy material)
Grettum	Slope Poor traction (loose sandy material)
Perida	Slope Wetness Poor traction (loose sandy material)
496B:	
Karlsborg	Wetness Poor traction (loose sandy material)
496C:	
Karlsborg	Wetness Poor traction (loose sandy material)
496D:	
Karlsborg	Slope Wetness Poor traction (loose sandy material)
497A:	
Meenon	Wetness Poor traction (loose sandy material)
521A:	
Dody	Wetness Susceptible to rutting and wheel slippage Poor traction (loose sandy material)
523A:	
Nokasippi	Wetness Susceptible to rutting and wheel slippage Poor traction (loose sandy material)
529B:	
Perida	Wetness Poor traction (loose sandy material)
531A:	
Stengel	Wetness Poor traction (loose sandy material)
542B:	
Haugen, very stony	Wetness
Haugen	Wetness

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
542C:	
Haugen, very stony	Wetness
Haugen	Wetness
544F:	
Menahga	Slope Poor traction (loose sandy material)
Mahtomedi	Slope Poor traction (loose sandy material)
553B:	
Branstad	Susceptible to rutting and wheel slippage
553C:	
Branstad	Susceptible to rutting and wheel slippage
553D:	
Branstad	Slope Susceptible to rutting and wheel slippage
555A:	
Fordum	Flooding Wetness Susceptible to rutting and wheel slippage
557B:	
Shawano	Poor traction (loose sandy material)
557C:	
Shawano	Poor traction (loose sandy material)
557D:	
Shawano	Slope Poor traction (loose sandy material)
586A:	
Chelmo	Wetness Susceptible to rutting and wheel slippage
600A:	
Haplosaprists	Onsite investigation required
Psammaquents	Onsite investigation required
615B:	
Cress	No major considerations
615C:	
Cress	No major considerations
615D:	
Cress	Slope
620C:	
Lundeen	Areas of rock outcrop
Haustrup	Areas of rock outcrop
Rock outcrop.	

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
621A:	
Bjorkland	Wetness Susceptible to rutting and wheel slippage Poor traction (loose sandy material)
623A:	
Capitola	Wetness Susceptible to rutting and wheel slippage
624A:	
Ossmer	Wetness
631A:	
Giese	Wetness Susceptible to rutting and wheel slippage
632A:	
Aftad	Wetness
632B:	
Aftad	Wetness
632C:	
Aftad	Wetness
634C:	
Drylanding	No major considerations
Beartree	Wetness Susceptible to rutting and wheel slippage
Rock outcrop.	
635C:	
Drylanding	No major considerations
Beartree	Wetness Susceptible to rutting and wheel slippage
Rock outcrop.	
648B:	
Sconsin	Wetness
669D:	
Fremstadt, stony	Slope Poor traction (loose sandy material)
Pomroy	Slope Wetness Poor traction (loose sandy material)
671B:	
Spoonerhill, stony	Wetness
Spoonerhill	Wetness
706A:	
Winterfield	Flooding Wetness Poor traction (loose sandy material)
Totagatic	Flooding Wetness Poor traction (loose sandy material)

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
715A:	
Mora	Wetness
717B:	
Milaca	Wetness
717C:	
Milaca	Wetness
720F:	
Haustrup	Slope Areas of rock outcrop
Lundeen	Slope Areas of rock outcrop
Rock outcrop.	
726B:	
Sissabagama	Wetness Poor traction (loose sandy material)
742B:	
Milaca	Wetness
742C:	
Milaca	Wetness
742D:	
Milaca	Slope Wetness
755A:	
Moppet	No major considerations
Fordum	Flooding Wetness Susceptible to rutting and wheel slippage
771A:	
Lenroot	Poor traction (loose sandy material)
812B:	
Mora	Wetness
825A:	
Meehan	Wetness Poor traction (loose sandy material)
896A:	
Wurtsmith	Poor traction (loose sandy material)
980A:	
Soderbeck	Wetness Surface boulders
1070C:	
Fremstadt	Poor traction (loose sandy material)
Cress	No major considerations

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
1070D:	
Fremstadt	Slope Poor traction (loose sandy material)
Cress	Slope
1080B:	
Spoonerhill	Wetness
Spoonerhill, stony	Wetness
Cress	No major considerations
2002.	
Udorthents, earthen dams	
2015.	
Pits	
2050.	
Landfill	
3011A:	
Barronett	Wetness Susceptible to rutting and wheel slippage
3082E:	
Braham	Slope Poor traction (loose sandy material)
Shawano	Slope Poor traction (loose sandy material)
3114A:	
Saprists	Wetness Susceptible to rutting and wheel slippage
Aquents	Wetness Susceptible to rutting and wheel slippage Poor traction (loose sandy material)
Aquepts	Wetness Susceptible to rutting and wheel slippage
3125A:	
Meehan	Wetness Poor traction (loose sandy material)
3126A:	
Wurtsmith	Poor traction (loose sandy material)
3312B:	
Glendenning, very stony	Wetness
Glendenning	Wetness
3336A:	
Fenander	Wetness

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
3403A:	
Loxley	Wetness Susceptible to rutting and wheel slippage
Beseman	Wetness Susceptible to rutting and wheel slippage
Dawson	Wetness Susceptible to rutting and wheel slippage
3429B:	
Lara	Wetness Poor traction (loose sandy material)
3429C:	
Lara	Wetness Poor traction (loose sandy material)
3446A:	
Newson	Wetness Susceptible to rutting and wheel slippage Poor traction (loose sandy material)
3448B:	
Grettum	Poor traction (loose sandy material)
3448C:	
Grettum	Poor traction (loose sandy material)
3510B:	
Pomroy	Wetness Poor traction (loose sandy material)
Fremstadt	Poor traction (loose sandy material)
Fremstadt, stony	Poor traction (loose sandy material)
3510C:	
Pomroy	Wetness Poor traction (loose sandy material)
Fremstadt	Poor traction (loose sandy material)
Fremstadt, stony	Poor traction (loose sandy material)
3511A:	
Bushville	Wetness Poor traction (loose sandy material)
3516A:	
Slimlake	No major considerations
3625A:	
Lino	Wetness Poor traction (loose sandy material)
3626A:	
Crex	Poor traction (loose sandy material)
3629B:	
Perida	Wetness Poor traction (loose sandy material)

Table 10.--Forest Land Harvest Equipment Considerations--Continued

Map symbol and soil name	Forest land harvest equipment considerations
3636B:	
Plainbo	Poor traction (loose sandy material)
3636C:	
Plainbo	Poor traction (loose sandy material)
M-W.	
Miscellaneous water	
W.	
Water	

Table 11.--Forest Haul Road Considerations

(See text for a description of the considerations listed in this table)

Map symbol and soil name	Forest haul road considerations
3A:	
Totagatic	Flooding Wetness Low bearing strength
Bowstring	Flooding Wetness Low bearing strength
Ausable	Flooding Wetness Low bearing strength
12A:	
Makwa	Flooding Wetness Low bearing strength
22A:	
Comstock	Wetness Low bearing strength
27A:	
Scott Lake	No major considerations
28B:	
Haugen, very stony	Wetness
Haugen	Wetness
Rosholt, very stony	No major considerations
Rosholt	No major considerations
28C:	
Haugen, very stony	Slope Wetness
Haugen	Slope Wetness
Rosholt, very stony	Slope
Rosholt	Slope
38A:	
Rosholt	No major considerations
38B:	
Rosholt	No major considerations
38C:	
Rosholt	Slope
38D:	
Rosholt	Slope
42D:	
Amery	Slope

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
43B:	
Antigo	No major considerations
43C:	
Antigo	Slope
63A:	
Crystal Lake	Wetness Low bearing strength
63B:	
Crystal Lake	Wetness Low bearing strength
63C:	
Crystal Lake	Slope Wetness Low bearing strength
64A:	
Totagatic	Flooding Wetness Low bearing strength
Winterfield	Flooding Wetness
69C:	
Keweenaw	Slope
Sayner	Slope
Vilas	Slope
69E:	
Keweenaw	Slope
Sayner	Slope
Vilas	Slope
82B:	
Cutaway	No major considerations
Branstad	Low bearing strength
82C:	
Cutaway	Slope
Branstad	Slope Low bearing strength
83A:	
Smestad	Wetness
85B:	
Taylor	Wetness Low bearing strength
85C:	
Taylor	Slope Wetness Low bearing strength

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
86A:	
Indus	Wetness Low bearing strength
Alango	Wetness Low bearing strength
89A:	
Wildwood	Wetness Low bearing strength
96B:	
Karlsborg	Wetness
96C:	
Karlsborg	Slope Wetness
96D:	
Karlsborg	Slope Wetness
100B:	
Menahga	No major considerations
100C:	
Menahga	Slope
100D:	
Menahga	Slope
120B:	
Kost	No major considerations
127D:	
Amery	Slope
Rosholt	Slope
127E:	
Amery	Slope
Rosholt	Slope
151A:	
Bluffton	Wetness Low bearing strength
152A:	
Alstad	Wetness Low bearing strength
154E:	
Cushing	Slope Low bearing strength
156B:	
Magnor, very stony	Wetness
Magnor	Wetness

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
157B:	
Freeon, very stony	Wetness
Freeon	Wetness
157C:	
Freeon, very stony	Slope Wetness
Freeon	Slope Wetness
160A:	
Oesterle	Wetness
165B:	
Elderon	No major considerations
185B:	
Tradelake	Wetness
Taylor	Wetness Low bearing strength
185C:	
Tradelake	Slope Wetness
Taylor	Slope Wetness Low bearing strength
185D:	
Tradelake	Slope Wetness
Taylor	Slope Wetness Low bearing strength
185E:	
Tradelake	Slope Wetness
Taylor	Slope Wetness Low bearing strength
189A:	
Siren	Wetness Low bearing strength
193A:	
Minocqua	Wetness Low bearing strength
337A:	
Plover	Wetness
368B:	
Mahtomedi	No major considerations
Cress	No major considerations

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
368C:	
Mahtomedi	Slope
Cress	Slope
368D:	
Mahtomedi	Slope
Cress	Slope
368E:	
Mahtomedi	Slope
Cress	Slope
380B:	
Cress	No major considerations
Rosholt	No major considerations
380C:	
Cress	Slope
Rosholt	Slope
380D:	
Cress	Slope
Rosholt	Slope
383B:	
Mahtomedi	No major considerations
383C:	
Mahtomedi	Slope
383D:	
Mahtomedi	Slope
392C:	
Rockmarsh	Slope Wetness Low bearing strength
Dairyland	Slope Wetness
Makwa	Slope Wetness Low bearing strength
396B:	
Friendship	No major considerations
Wurtsmith	No major considerations
Grayling	No major considerations
397A:	
Perchlake	Wetness
399B:	
Grayling	No major considerations

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
399C:	
Grayling	Slope
399D:	
Grayling	Slope
406A:	
Loxley	Wetness Low bearing strength
407A:	
Seelyeville	Wetness Low bearing strength
Markey	Wetness Low bearing strength
410A:	
Seelyeville	Wetness Low bearing strength
Cathro	Wetness Low bearing strength
419A:	
Seelyeville	Wetness Low bearing strength
Cathro	Wetness Low bearing strength
Markey	Wetness Low bearing strength
421A:	
Dora	Wetness Low bearing strength
Markey	Wetness Low bearing strength
Seelyeville	Wetness Low bearing strength
422A:	
Seelyeville	Wetness Low bearing strength
Cathro	Wetness Low bearing strength
Rondeau	Wetness Low bearing strength
426B:	
Emmert	No major considerations
Mahtomedi	No major considerations
Menahga	No major considerations

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
426C:	
Emmert	Slope
Mahtomedi	Slope
Menahga	Slope
426D:	
Emmert	Slope
Mahtomedi	Slope
Menahga	Slope
430A:	
Freya	Wetness
439B:	
Graycalm	No major considerations
Menahga	No major considerations
439C:	
Graycalm	Slope
Menahga	Slope
439D:	
Graycalm	Slope
Menahga	Slope
442C:	
Haugen	Slope Wetness
Greenwood	Wetness Low bearing strength
443D:	
Amery	Slope
Greenwood	Wetness Low bearing strength
459A:	
Loxley	Wetness Low bearing strength
Daisybay	Wetness Low bearing strength
Dawson	Wetness Low bearing strength
461A:	
Bowstring	Flooding Wetness Low bearing strength

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
465A:	
Newson	Wetness Low bearing strength
Meehan	Wetness
469E:	
Bigisland	Slope Low bearing strength
Milaca	Slope Wetness
471B:	
Dairyland	Wetness
Emmert	No major considerations
471C:	
Dairyland	Slope Wetness
Emmert	Slope
472A:	
Rockmarsh	Flooding Wetness Low bearing strength
Clemens	Flooding Wetness Low bearing strength
473A:	
Dairyland	Wetness
Skog	No major considerations
484A:	
Greenwood	Wetness Low bearing strength
Beseman	Wetness Low bearing strength
485C:	
Lupton	Slope Wetness Low bearing strength
Tawas	Slope Wetness Low bearing strength
495B:	
Karlsborg	Wetness
Grettum	No major considerations
Perida	Wetness

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
495C:	
Karlsborg	Slope Wetness
Grettum	Slope
Perida	Slope Wetness
495D:	
Karlsborg	Slope Wetness
Grettum	Slope
Perida	Slope Wetness
496B:	
Karlsborg	Wetness
496C:	
Karlsborg	Slope Wetness
496D:	
Karlsborg	Slope Wetness
497A:	
Meenon	Wetness
521A:	
Dody	Wetness Low bearing strength
523A:	
Nokasippi	Wetness Low bearing strength
529B:	
Perida	Wetness
531A:	
Stengel	Wetness
542B:	
Haugen, very stony	Wetness
Haugen	Wetness
542C:	
Haugen, very stony	Slope Wetness
Haugen	Slope Wetness
544F:	
Menahga	Slope
Mahtomedi	Slope

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
553B:	
Branstad	Low bearing strength
553C:	
Branstad	Slope Low bearing strength
553D:	
Branstad	Slope Low bearing strength
555A:	
Fordum	Flooding Wetness Low bearing strength
557B:	
Shawano	No major considerations
557C:	
Shawano	Slope
557D:	
Shawano	Slope
586A:	
Chelmo	Wetness Low bearing strength
600A:	
Haplosaprists	Onsite investigation required
Psammaquents	Onsite investigation required
615B:	
Cress	No major considerations
615C:	
Cress	Slope
615D:	
Cress	Slope
620C:	
Lundeen	Slope Areas of rock outcrop
Haustrup	Slope Depth to hard rock Areas of rock outcrop
Rock outcrop.	
621A:	
Bjorkland	Wetness Low bearing strength
623A:	
Capitola	Wetness Low bearing strength
624A:	
Ossmer	Wetness

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
631A:	
Giese	Wetness Low bearing strength
632A:	
Aftad	Wetness
632B:	
Aftad	Wetness
632C:	
Aftad	Slope Wetness
634C:	
Drylanding	Slope Depth to hard rock
Beartree	Wetness Depth to hard rock Low bearing strength
Rock outcrop.	
635C:	
Drylanding	Slope Depth to hard rock
Beartree	Wetness Depth to hard rock Low bearing strength
Rock outcrop.	
648B:	
Sconsin	Wetness
669D:	
Fremstadt, stony	Slope
Pomroy	Slope Wetness
671B:	
Spoonerhill, stony	Wetness
Spoonerhill	Wetness
706A:	
Winterfield	Flooding Wetness
Totagatic	Flooding Wetness
715A:	
Mora	Wetness
717B:	
Milaca	Wetness
717C:	
Milaca	Slope Wetness

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
720F:	
Haustrup	Slope Depth to hard rock Areas of rock outcrop
Lundeen	Slope Areas of rock outcrop
Rock outcrop.	
726B:	
Sissabagama	Wetness
742B:	
Milaca	Wetness
742C:	
Milaca	Slope Wetness
742D:	
Milaca	Slope Wetness
755A:	
Moppet	No major considerations
Fordum	Flooding Wetness Low bearing strength
771A:	
Lenroot	No major considerations
812B:	
Mora	Wetness
825A:	
Meehan	Wetness
896A:	
Wurtsmith	No major considerations
980A:	
Soderbeck	Wetness Surface boulders
1070C:	
Fremstadt	Slope
Cress	Slope
1070D:	
Fremstadt	Slope
Cress	Slope
1080B:	
Spoonerhill	Wetness
Spoonerhill, stony	Wetness
Cress	No major considerations

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
2002.	
Udorthents, earthen dams	
2015.	
Pits	
2050.	
Landfill	
3011A:	
Barronett	Wetness Low bearing strength
3082E:	
Braham	Slope
Shawano	Slope
3114A:	
Saprists	Wetness Low bearing strength
Aquents	Wetness Low bearing strength
Aquepts	Wetness Low bearing strength
3125A:	
Meehan	Wetness
3126A:	
Wurtsmith	No major considerations
3312B:	
Glendenning, very stony	Wetness
Glendenning	Wetness
3336A:	
Fenander	Wetness
3403A:	
Loxley	Wetness Low bearing strength
Beseman	Wetness Low bearing strength
Dawson	Wetness Low bearing strength
3429B:	
Lara	Wetness
3429C:	
Lara	Slope Wetness
3446A:	
Newson	Wetness Low bearing strength

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
3448B:	
Grettum	No major considerations
3448C:	
Grettum	Slope
3510B:	
Pomroy	Wetness
Fremstadt	No major considerations
Fremstadt, stony	No major considerations
3510C:	
Pomroy	Slope Wetness
Fremstadt	Slope
Fremstadt, stony	Slope
3511A:	
Bushville	Wetness
3516A:	
Slimlake	No major considerations
3625A:	
Lino	Wetness
3626A:	
Crex	No major considerations
3629B:	
Perida	Wetness
3636B:	
Plainbo	No major considerations
3636C:	
Plainbo	Slope
M-W.	
Miscellaneous water	
W.	
Water	

Table 12.--Forest Log Landing Considerations

(See text for a description of the considerations listed in this table)

Map symbol and soil name	Forest log landing considerations
3A:	
Totagatic	Flooding Wetness Susceptible to rutting and wheel slippage
Bowstring	Flooding Wetness Susceptible to rutting and wheel slippage
Ausable	Flooding Wetness Susceptible to rutting and wheel slippage
12A:	
Makwa	Flooding Wetness Susceptible to rutting and wheel slippage
22A:	
Comstock	Wetness Susceptible to rutting and wheel slippage
27A:	
Scott Lake	No major considerations
28B:	
Haugen, very stony	Wetness
Haugen	Wetness
Rosholt, very stony	No major considerations
Rosholt	No major considerations
28C:	
Haugen, very stony	Slope Wetness
Haugen	Slope Wetness
Rosholt, very stony	Slope
Rosholt	Slope
38A:	
Rosholt	No major considerations
38B:	
Rosholt	No major considerations
38C:	
Rosholt	Slope
38D:	
Rosholt	Slope
42D:	
Amery	Slope
43B:	
Antigo	No major considerations

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
43C:	
Antigo	Slope
63A:	
Crystal Lake	Wetness Susceptible to rutting and wheel slippage
63B:	
Crystal Lake	Wetness Susceptible to rutting and wheel slippage
63C:	
Crystal Lake	Slope Wetness Susceptible to rutting and wheel slippage
64A:	
Totagatic	Flooding Wetness Susceptible to rutting and wheel slippage
Winterfield	Flooding Wetness
69C:	
Keweenaw	Slope
Sayner	Slope
Vilas	Slope
69E:	
Keweenaw	Slope
Sayner	Slope
Vilas	Slope
82B:	
Cutaway	No major considerations
Branstad	Susceptible to rutting and wheel slippage
82C:	
Cutaway	Slope
Branstad	Slope Susceptible to rutting and wheel slippage
83A:	
Smestad	Wetness
85B:	
Taylor	Wetness Susceptible to rutting and wheel slippage
85C:	
Taylor	Slope Wetness Susceptible to rutting and wheel slippage

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
86A:	
Indus	Wetness Susceptible to rutting and wheel slippage
Alango	Wetness Susceptible to rutting and wheel slippage
89A:	
Wildwood	Wetness Susceptible to rutting and wheel slippage
96B:	
Karlsborg	Wetness
96C:	
Karlsborg	Slope Wetness
96D:	
Karlsborg	Slope Wetness
100B:	
Menahga	No major considerations
100C:	
Menahga	Slope
100D:	
Menahga	Slope
120B:	
Kost	No major considerations
127D:	
Amery	Slope
Rosholt	Slope
127E:	
Amery	Slope
Rosholt	Slope
151A:	
Bluffton	Wetness Susceptible to rutting and wheel slippage
152A:	
Alstad	Wetness Susceptible to rutting and wheel slippage
154E:	
Cushing	Slope Susceptible to rutting and wheel slippage
156B:	
Magnor, very stony	Wetness
Magnor	Wetness

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
157B:	
Freeon, very stony	Wetness
Freeon	Wetness
157C:	
Freeon, very stony	Slope Wetness
Freeon	Slope Wetness
160A:	
Oesterle	Wetness
165B:	
Elderon	No major considerations
185B:	
Tradelake	Wetness
Taylor	Wetness Susceptible to rutting and wheel slippage
185C:	
Tradelake	Slope Wetness
Taylor	Slope Wetness Susceptible to rutting and wheel slippage
185D:	
Tradelake	Slope Wetness
Taylor	Slope Wetness Susceptible to rutting and wheel slippage
185E:	
Tradelake	Slope Wetness
Taylor	Slope Wetness Susceptible to rutting and wheel slippage
189A:	
Siren	Wetness Susceptible to rutting and wheel slippage
193A:	
Minocqua	Wetness Susceptible to rutting and wheel slippage
337A:	
Plover	Wetness
368B:	
Mahtomedi	No major considerations
Cress	No major considerations

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
368C:	
Mahtomedi	Slope
Cress	Slope
368D:	
Mahtomedi	Slope
Cress	Slope
368E:	
Mahtomedi	Slope
Cress	Slope
380B:	
Cress	No major considerations
Rosholt	No major considerations
380C:	
Cress	Slope
Rosholt	Slope
380D:	
Cress	Slope
Rosholt	Slope
383B:	
Mahtomedi	No major considerations
383C:	
Mahtomedi	Slope
383D:	
Mahtomedi	Slope
392C:	
Rockmarsh	Slope Wetness Susceptible to rutting and wheel slippage
Dairyland	Slope Wetness
Makwa	Slope Wetness Susceptible to rutting and wheel slippage
396B:	
Friendship	No major considerations
Wurtsmith	No major considerations
Grayling	No major considerations
397A:	
Perchlake	Wetness
399B:	
Grayling	No major considerations

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
399C:	
Grayling	Slope
399D:	
Grayling	Slope
406A:	
Loxley	Wetness Susceptible to rutting and wheel slippage
407A:	
Seelyeville	Wetness Susceptible to rutting and wheel slippage
Markey	Wetness Susceptible to rutting and wheel slippage
410A:	
Seelyeville	Wetness Susceptible to rutting and wheel slippage
Cathro	Wetness Susceptible to rutting and wheel slippage
419A:	
Seelyeville	Wetness Susceptible to rutting and wheel slippage
Cathro	Wetness Susceptible to rutting and wheel slippage
Markey	Wetness Susceptible to rutting and wheel slippage
421A:	
Dora	Wetness Susceptible to rutting and wheel slippage
Markey	Wetness Susceptible to rutting and wheel slippage
Seelyeville	Wetness Susceptible to rutting and wheel slippage
422A:	
Seelyeville	Wetness Susceptible to rutting and wheel slippage
Cathro	Wetness Susceptible to rutting and wheel slippage
Rondeau	Wetness Susceptible to rutting and wheel slippage
426B:	
Emmert	No major considerations
Mahtomedi	No major considerations
Menahga	No major considerations

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
426C:	
Emmert	Slope
Mahtomedi	Slope
Menahga	Slope
426D:	
Emmert	Slope
Mahtomedi	Slope
Menahga	Slope
430A:	
Freya	Wetness
439B:	
Graycalm	No major considerations
Menahga	No major considerations
439C:	
Graycalm	Slope
Menahga	Slope
439D:	
Graycalm	Slope
Menahga	Slope
442C:	
Haugen	Slope Wetness
Greenwood	Wetness Susceptible to rutting and wheel slippage
443D:	
Amery	Slope
Greenwood	Wetness Susceptible to rutting and wheel slippage
459A:	
Loxley	Wetness Susceptible to rutting and wheel slippage
Daisybay	Wetness Susceptible to rutting and wheel slippage
Dawson	Wetness Susceptible to rutting and wheel slippage
461A:	
Bowstring	Flooding Wetness Susceptible to rutting and wheel slippage
465A:	
Newson	Wetness Susceptible to rutting and wheel slippage
Meehan	Wetness

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
469E:	
Bigisland	Slope Susceptible to rutting and wheel slippage
Milaca	Slope Wetness
471B:	
Dairyland	Wetness
Emmert	No major considerations
471C:	
Dairyland	Slope Wetness
Emmert	Slope
472A:	
Rockmarsh	Flooding Wetness Susceptible to rutting and wheel slippage
Clemens	Flooding Wetness Susceptible to rutting and wheel slippage
473A:	
Dairyland	Wetness
Skog	No major considerations
484A:	
Greenwood	Wetness Susceptible to rutting and wheel slippage
Beseman	Wetness Susceptible to rutting and wheel slippage
485C:	
Lupton	Slope Wetness Susceptible to rutting and wheel slippage
Tawas	Slope Wetness Susceptible to rutting and wheel slippage
495B:	
Karlsborg	Wetness
Grettum	No major considerations
Perida	Wetness
495C:	
Karlsborg	Slope Wetness
Grettum	Slope
Perida	Slope Wetness

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
495D:	
Karlsborg	Slope Wetness
Grettum	Slope
Perida	Slope Wetness
496B:	
Karlsborg	Wetness
496C:	
Karlsborg	Slope Wetness
496D:	
Karlsborg	Slope Wetness
497A:	
Meenon	Wetness
521A:	
Dody	Wetness Susceptible to rutting and wheel slippage
523A:	
Nokasippi	Wetness Susceptible to rutting and wheel slippage
529B:	
Perida	Wetness
531A:	
Stengel	Wetness
542B:	
Haugen, very stony	Wetness
Haugen	Wetness
542C:	
Haugen, very stony	Slope Wetness
Haugen	Slope Wetness
544F:	
Menahga	Slope
Mahtomedi	Slope
553B:	
Branstad	Susceptible to rutting and wheel slippage
553C:	
Branstad	Slope Susceptible to rutting and wheel slippage
553D:	
Branstad	Slope Susceptible to rutting and wheel slippage

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
555A:	
Fordum	Flooding Wetness Susceptible to rutting and wheel slippage
557B:	
Shawano	No major considerations
557C:	
Shawano	Slope
557D:	
Shawano	Slope
586A:	
Chelmo	Wetness Susceptible to rutting and wheel slippage
600A:	
Haplosaprists	Onsite investigation required
Psammaquents	Onsite investigation required
615B:	
Cress	No major considerations
615C:	
Cress	Slope
615D:	
Cress	Slope
620C:	
Lundeen	Slope Areas of rock outcrop
Haustrup	Slope Areas of rock outcrop
Rock outcrop.	
621A:	
Bjorkland	Wetness Susceptible to rutting and wheel slippage
623A:	
Capitola	Wetness Susceptible to rutting and wheel slippage
624A:	
Ossmer	Wetness
631A:	
Giese	Wetness Susceptible to rutting and wheel slippage
632A:	
Aftad	Wetness
632B:	
Aftad	Wetness

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
632C:	
Aftad	Slope Wetness
634C:	
Drylanding	Slope
Beartree	Wetness Susceptible to rutting and wheel slippage
Rock outcrop.	
635C:	
Drylanding	Slope
Beartree	Wetness Susceptible to rutting and wheel slippage
Rock outcrop.	
648B:	
Sconsin	Wetness
669D:	
Fremstadt, stony	Slope
Pomroy	Slope Wetness
671B:	
Spoonerhill, stony	Wetness
Spoonerhill	Wetness
706A:	
Winterfield	Flooding Wetness
Totagatic	Flooding Wetness
715A:	
Mora	Wetness
717B:	
Milaca	Wetness
717C:	
Milaca	Slope Wetness
720F:	
Haustrup	Slope Areas of rock outcrop
Lundeen	Slope Areas of rock outcrop
Rock outcrop.	
726B:	
Sissabagama	Wetness

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
742B:	
Milaca	Wetness
742C:	
Milaca	Slope Wetness
742D:	
Milaca	Slope Wetness
755A:	
Moppet	Flooding
Fordum	Flooding Wetness Susceptible to rutting and wheel slippage
771A:	
Lenroot	No major considerations
812B:	
Mora	Wetness
825A:	
Meehan	Wetness
896A:	
Wurtsmith	No major considerations
980A:	
Soderbeck	Wetness Surface boulders
1070C:	
Fremstadt	Slope
Cress	Slope
1070D:	
Fremstadt	Slope
Cress	Slope
1080B:	
Spoonerhill	Wetness
Spoonerhill, stony	Wetness
Cress	No major considerations
2002.	
Udorthents, earthen dams	
2015.	
Pits	
2050.	
Landfill	
3011A:	
Barronett	Wetness Susceptible to rutting and wheel slippage

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
3082E:	
Braham	Slope
Shawano	Slope
3114A:	
Saprists	Wetness Susceptible to rutting and wheel slippage
Aquents	Wetness Susceptible to rutting and wheel slippage
Aquepts	Wetness Susceptible to rutting and wheel slippage
3125A:	
Meehan	Wetness
3126A:	
Wurtsmith	No major considerations
3312B:	
Glendenning, very stony	Wetness
Glendenning	Wetness
3336A:	
Fenander	Wetness
3403A:	
Loxley	Wetness Susceptible to rutting and wheel slippage
Beseman	Wetness Susceptible to rutting and wheel slippage
Dawson	Wetness Susceptible to rutting and wheel slippage
3429B:	
Lara	Wetness
3429C:	
Lara	Slope Wetness
3446A:	
Newson	Wetness Susceptible to rutting and wheel slippage
3448B:	
Grettum	No major considerations
3448C:	
Grettum	Slope
3510B:	
Pomroy	Wetness
Fremstadt	No major considerations
Fremstadt, stony	No major considerations

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
3510C:	
Pomroy	Slope Wetness
Fremstadt	Slope
Fremstadt, stony	Slope
3511A:	
Bushville	Wetness
3516A:	
Slimlake	No major considerations
3625A:	
Lino	Wetness
3626A:	
Crex	No major considerations
3629B:	
Perida	Wetness
3636B:	
Plainbo	No major considerations
3636C:	
Plainbo	Slope
M-W.	
Miscellaneous water	
W.	
Water	

Table 13.--Forest Land Site Preparation and Planting Considerations

(See text for a description of the considerations listed in this table)

Map symbol and soil name	Forest land site preparation and planting considerations
3A:	
Totagatic	Flooding Wetness
Bowstring	Flooding Wetness
Ausable	Flooding Wetness
12A:	
Makwa	Flooding Wetness Surface stones Cobbly surface
22A:	
Comstock	Wetness Potential poor tilth and compaction
27A:	
Scott Lake	Cobbly surface
28B:	
Haugen, very stony	Wetness Surface stones Cobbly surface
Haugen	Wetness Cobbly surface
Rosholt, very stony	Surface stones Cobbly surface
Rosholt	Cobbly surface
28C:	
Haugen, very stony	Wetness Surface stones Cobbly surface Water erosion
Haugen	Wetness Cobbly surface Water erosion
Rosholt, very stony	Surface stones Cobbly surface Water erosion
Rosholt	Cobbly surface Water erosion
38A:	
Rosholt	Cobbly surface
38B:	
Rosholt	Cobbly surface
38C:	
Rosholt	Cobbly surface Water erosion

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
38D:	
Rosholt	Slope Cobbly surface Water erosion
42D:	
Amery	Slope Surface stones Cobbly surface Water erosion
43B:	
Antigo	Cobbly surface
43C:	
Antigo	Cobbly surface Water erosion
63A:	
Crystal Lake	Wetness Potential poor tilth and compaction
63B:	
Crystal Lake	Wetness Potential poor tilth and compaction
63C:	
Crystal Lake	Wetness Water erosion Potential poor tilth and compaction
64A:	
Totagatic	Flooding Wetness
Winterfield	Flooding Wetness
69C:	
Keweenaw	Surface stones Water erosion
Sayner	Surface stones Cobbly surface Water erosion
Vilas	Surface stones Water erosion
69E:	
Keweenaw	Slope Surface stones Water erosion
Sayner	Slope Surface stones Cobbly surface Water erosion
Vilas	Slope Surface stones Water erosion

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
82B:	
Cutaway	No major considerations
Branstad	No major considerations
82C:	
Cutaway	Water erosion
Branstad	Water erosion
83A:	
Smestad	Wetness
85B:	
Taylor	Wetness Potential poor tilth and compaction
85C:	
Taylor	Wetness Water erosion Potential poor tilth and compaction
86A:	
Indus	Wetness Potential poor tilth and compaction
Alango	Wetness Potential poor tilth and compaction
89A:	
Wildwood	Wetness
96B:	
Karlsborg	Wetness
96C:	
Karlsborg	Wetness Water erosion
96D:	
Karlsborg	Slope Wetness Water erosion
100B:	
Menahga	No major considerations
100C:	
Menahga	Water erosion
100D:	
Menahga	Slope Water erosion
120B:	
Kost	No major considerations
127D:	
Amery	Slope Surface stones Cobbly surface Water erosion

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
127D:	
Rosholt	Slope Surface stones Cobbly surface Water erosion
127E:	
Amery	Slope Surface stones Cobbly surface Water erosion
Rosholt	Slope Surface stones Cobbly surface Water erosion
151A:	
Bluffton	Wetness
152A:	
Alstad	Wetness Cobbly surface
154E:	
Cushing	Slope Cobbly surface Water erosion
156B:	
Magnor, very stony	Wetness Surface stones Cobbly surface
Magnor	Wetness
157B:	
Freeon, very stony	Wetness Surface stones Cobbly surface
Freeon	Wetness
157C:	
Freeon, very stony	Wetness Surface stones Cobbly surface Water erosion
Freeon	Wetness Water erosion
160A:	
Oesterle	Wetness Cobbly surface
165B:	
Elderon	No major considerations
185B:	
Tradelake	Wetness
Taylor	Wetness Potential poor tilth and compaction

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
185C:	
Tradelake	Wetness Water erosion
Taylor	Wetness Water erosion Potential poor tilth and compaction
185D:	
Tradelake	Slope Wetness Water erosion
Taylor	Slope Wetness Water erosion Potential poor tilth and compaction
185E:	
Tradelake	Slope Wetness Water erosion
Taylor	Slope Wetness Water erosion Potential poor tilth and compaction
189A:	
Siren	Wetness Potential poor tilth and compaction
193A:	
Minocqua	Wetness
337A:	
Plover	Wetness
368B:	
Mahtomedi	Cobbly surface
Cress	Cobbly surface
368C:	
Mahtomedi	Cobbly surface Water erosion
Cress	Cobbly surface Water erosion
368D:	
Mahtomedi	Slope Cobbly surface Water erosion
Cress	Slope Cobbly surface Water erosion

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
368E:	
Mahtomedi	Slope Cobbly surface Water erosion
Cress	Slope Cobbly surface Water erosion
380B:	
Cress	Cobbly surface
Rosholt	Cobbly surface
380C:	
Cress	Cobbly surface Water erosion
Rosholt	Cobbly surface Water erosion
380D:	
Cress	Slope Cobbly surface Water erosion
Rosholt	Slope Cobbly surface Water erosion
383B:	
Mahtomedi	Cobbly surface
383C:	
Mahtomedi	Cobbly surface Water erosion
383D:	
Mahtomedi	Slope Cobbly surface Water erosion
392C:	
Rockmarsh	Slope Wetness Surface stones Cobbly surface Water erosion Potential poor tilth and compaction
Dairyland	Slope Wetness Surface stones Cobbly surface Water erosion
Makwa	Wetness Surface stones Cobbly surface Water erosion

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
396B:	
Friendship	No major considerations
Wurtsmith	No major considerations
Grayling	No major considerations
397A:	
Perchlake	Wetness
399B:	
Grayling	No major considerations
399C:	
Grayling	Water erosion
399D:	
Grayling	Slope Water erosion
406A:	
Loxley	Wetness
407A:	
Seelyeville	Wetness
Markey	Wetness
410A:	
Seelyeville	Wetness
Cathro	Wetness
419A:	
Seelyeville	Wetness
Cathro	Wetness
Markey	Wetness
421A:	
Dora	Wetness
Markey	Wetness
Seelyeville	Wetness
422A:	
Seelyeville	Wetness
Cathro	Wetness
Rondeau	Wetness
426B:	
Emmert	No major considerations
Mahtomedi	No major considerations
Menahga	No major considerations

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
426C:	
Emmert	Water erosion
Mahtomedi	Water erosion
Menahga	Water erosion
426D:	
Emmert	Slope Water erosion
Mahtomedi	Slope Water erosion
Menahga	Slope Water erosion
430A:	
Freya	Wetness
439B:	
Graycalm	Cobbly surface
Menahga	No major considerations
439C:	
Graycalm	Cobbly surface Water erosion
Menahga	Water erosion
439D:	
Graycalm	Slope Cobbly surface Water erosion
Menahga	Slope Water erosion
442C:	
Haugen	Wetness Surface stones Cobbly surface Water erosion
Greenwood	Wetness
443D:	
Amery	Slope Surface stones Cobbly surface Water erosion
Greenwood	Wetness
459A:	
Loxley	Wetness
Daisybay	Wetness
Dawson	Wetness

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
461A:	
Bowstring	Flooding Wetness
465A:	
Newson	Wetness
Meehan	Wetness
469E:	
Bigisland	Slope Surface stones Cobbly surface Water erosion
Milaca	Slope Wetness Surface stones Cobbly surface Water erosion
471B:	
Dairyland	Wetness Surface stones Cobbly surface
Emmert	Surface stones
471C:	
Dairyland	Wetness Surface stones Cobbly surface Water erosion
Emmert	Surface stones Water erosion
472A:	
Rockmarsh	Flooding Wetness Surface stones Cobbly surface Potential poor tilth and compaction
Clemens	Flooding Wetness Surface stones Potential poor tilth and compaction
473A:	
Dairyland	Wetness Surface stones Cobbly surface
Skog	Surface stones Cobbly surface
484A:	
Greenwood	Wetness
Beseman	Wetness

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
485C:	
Lupton	Wetness Water erosion
Tawas	Wetness Water erosion
495B:	
Karlsborg	Wetness
Grettum	No major considerations
Perida	Wetness
495C:	
Karlsborg	Wetness Water erosion
Grettum	Water erosion
Perida	Wetness Water erosion
495D:	
Karlsborg	Slope Wetness Water erosion
Grettum	Slope Water erosion
Perida	Slope Wetness Water erosion
496B:	
Karlsborg	Wetness
496C:	
Karlsborg	Wetness Water erosion
496D:	
Karlsborg	Slope Wetness Water erosion
497A:	
Meenon	Wetness
521A:	
Dody	Wetness
523A:	
Nokasippi	Wetness
529B:	
Perida	Wetness
531A:	
Stengel	Wetness

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
542B:	
Haugen, very stony	Wetness Surface stones Cobbly surface
Haugen	Wetness Cobbly surface
542C:	
Haugen, very stony	Wetness Surface stones Cobbly surface Water erosion
Haugen	Wetness Cobbly surface Water erosion
544F:	
Menahga	Slope Water erosion
Mahtomedi	Slope Cobbly surface Water erosion
553B:	
Branstad	No major considerations
553C:	
Branstad	Water erosion
553D:	
Branstad	Slope Water erosion
555A:	
Fordum	Flooding Wetness Cobbly surface Potential poor tilth and compaction
557B:	
Shawano	No major considerations
557C:	
Shawano	Water erosion
557D:	
Shawano	Slope Water erosion
586A:	
Chelmo	Wetness
600A:	
Haplosaprists	Onsite investigation required
Psammaquents	Onsite investigation required
615B:	
Cress	Cobbly surface

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
615C:	
Cress	Cobbly surface Water erosion
615D:	
Cress	Slope Cobbly surface Water erosion
620C:	
Lundeen	Surface stones Areas of rock outcrop Water erosion
Haustrup	Depth to hard rock Surface stones Areas of rock outcrop Water erosion
Rock outcrop	Not rated
621A:	
Bjorkland	Wetness
623A:	
Capitola	Wetness Surface stones
624A:	
Ossmer	Wetness Cobbly surface
631A:	
Giese	Wetness Surface stones
632A:	
Aftad	Wetness
632B:	
Aftad	Wetness
632C:	
Aftad	Wetness Water erosion
634C:	
Drylanding	Depth to hard rock Water erosion
Beartree	Wetness Depth to hard rock Potential poor tilth and compaction
Rock outcrop.	
635C:	
Drylanding	Depth to hard rock Water erosion

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
635C:	
Beartree	Wetness Depth to hard rock Potential poor tilth and compaction
Rock outcrop.	
648B:	
Sconsin	Wetness Cobbly surface
669D:	
Fremstadt, stony	Slope Surface stones Water erosion
Pomroy	Slope Wetness Water erosion
671B:	
Spoonerhill, stony	Wetness Surface stones Cobbly surface
Spoonerhill	Wetness Cobbly surface
706A:	
Winterfield	Flooding Wetness
Totagatic	Flooding Wetness
715A:	
Mora	Wetness Surface stones Cobbly surface
717B:	
Milaca	Wetness Surface stones Cobbly surface
717C:	
Milaca	Wetness Surface stones Cobbly surface Water erosion
720F:	
Haustrup	Slope Depth to hard rock Surface stones Areas of rock outcrop Water erosion
Lundeen	Slope Surface stones Areas of rock outcrop Water erosion
Rock outcrop.	

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
726B:	
Sissabagama	Wetness
742B:	
Milaca	Wetness Surface stones Cobbly surface
742C:	
Milaca	Wetness Surface stones Cobbly surface Water erosion
742D:	
Milaca	Slope Wetness Surface stones Cobbly surface Water erosion
755A:	
Moppet	No major considerations
Fordum	Flooding Wetness Cobbly surface Potential poor tilth and compaction
771A:	
Lenroot	No major considerations
812B:	
Mora	Wetness Surface stones Cobbly surface
825A:	
Meehan	Wetness
896A:	
Wurtsmith	No major considerations
980A:	
Soderbeck	Wetness Surface boulders Cobbly surface
1070C:	
Fremstadt	Surface stones Cobbly surface Water erosion
Cress	Cobbly surface Water erosion
1070D:	
Fremstadt	Slope Surface stones Cobbly surface Water erosion

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
1070D:	
Cress	Slope Cobbly surface Water erosion
1080B:	
Spoonerhill	Wetness Cobbly surface
Spoonerhill, stony	Wetness Surface stones Cobbly surface
Cress	Cobbly surface
2002.	
Udorthents, earthen dams	
2015.	
Pits	
2050.	
Landfill	
3011A:	
Barronett	Wetness Potential poor tilth and compaction
3082E:	
Braham	Slope Water erosion
Shawano	Slope Water erosion
3114A:	
Saprists	Wetness
Aquents	Wetness
Aquepts	Wetness
3125A:	
Meehan	Wetness
3126A:	
Wurtsmith	No major considerations
3312B:	
Glendenning, very stony	Wetness Surface stones Cobbly surface
Glendenning	Wetness Cobbly surface
3336A:	
Fenander	Wetness
3403A:	
Loxley	Wetness
Beseman	Wetness
Dawson	Wetness

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
3429B:	
Lara	Wetness
3429C:	
Lara	Wetness Water erosion
3446A:	
Newson	Wetness
3448B:	
Grettum	No major considerations
3448C:	
Grettum	Water erosion
3510B:	
Pomroy	Wetness Surface stones
Fremstadt	Surface stones
Fremstadt, stony	No major considerations
3510C:	
Pomroy	Wetness Surface stones Water erosion
Fremstadt	Water erosion
Fremstadt, stony	Surface stones Water erosion
3511A:	
Bushville	Wetness Cobbly surface
3516A:	
Slimlake	Cobbly surface
3625A:	
Lino	Wetness
3626A:	
Crex	No major considerations
3629B:	
Perida	Wetness
3636B:	
Plainbo	No major considerations
3636C:	
Plainbo	Water erosion
M-W.	
Miscellaneous water	
W.	
Water	

Table 14.--Forest Habitat Types

(Absence of an entry indicates that no forest habitat type is applicable. See text for descriptions of the forest habitat types listed in this table)

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
3A---------- Totagatic-Bowstring-Ausable complex, 0 to 2 percent slopes, frequently flooded	Lfp			1
12A---------- Makwa stony muck, 0 to 1 percent slopes, extremely stony, frequently flooded	Lwmin			1
22A---------- Comstock silt loam, 0 to 3 percent slopes	ASaI		ACaCi	1
27A---------- Scott Lake sandy loam, 0 to 3 percent slopes	AVDe			1
28B---------- Haugen-Rosholt complex, 2 to 6 percent slopes, very stony		AVDe, AAt		1
28C---------- Haugen-Rosholt complex, 6 to 12 percent slopes, very stony		AVDe, AAt		1
38A---------- Rosholt sandy loam, 0 to 2 percent slopes		AVDe, AAt		1
38B---------- Rosholt sandy loam, 2 to 6 percent slopes		AVDe, AAt		1
38C---------- Rosholt sandy loam, 6 to 12 percent slopes		AVDe, AAt		1
38D---------- Rosholt sandy loam, 12 to 20 percent slopes		AVDe, AAt		1
42D---------- Amery sandy loam, 12 to 25 percent slopes, very stony		AVDe, AAt		1
43B---------- Antigo silt loam, 1 to 6 percent slopes	ACaCi			1
43C---------- Antigo silt loam, 6 to 15 percent slopes	ACaCi			1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
63A---------- Crystal Lake silt loam, 0 to 2 percent slopes	ACaCi			1
63B---------- Crystal Lake silt loam, 1 to 6 percent slopes	ACaCi			1
63C---------- Crystal Lake silt loam, 6 to 12 percent slopes	ACaCi			1
64A---------- Totagatic-Winterfield complex, 0 to 2 percent slopes, frequently flooded		Lfp, ArVRp		1
69C---------- Keweenaw-Sayner-Vilas complex, 6 to 15 percent slopes, stony		PArVAm, AVDe		1
69E---------- Keweenaw-Sayner-Vilas complex, 15 to 45 percent slopes, stony		PArVAm, AVDe		1
82B---------- Cutaway-Branstad complex, 1 to 6 percent slopes	AAt			1
82C---------- Cutaway-Branstad complex, 6 to 12 percent slopes	AAt			1
83A---------- Smestad loamy fine sand, 0 to 3 percent slopes	ArVRp		AAt	1
85B---------- Taylor loam, 2 to 6 percent slopes	AAt			1
85C---------- Taylor loam, 6 to 12 percent slopes	AAt			1
86A---------- Indus-Alango complex, 0 to 2 percent slopes		Lwmin, ASaI		1
89A---------- Wildwood muck, 0 to 1 percent slopes	Lwmin			
96B---------- Karlsborg sand, 1 to 6 percent slopes	PArVAm			1
96C---------- Karlsborg sand, 6 to 12 percent slopes	PArVAm			1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
96D---------- Karlsborg sand, 12 to 20 percent slopes	PArVAm			1
100B---------- Menahga sand, 0 to 6 percent slopes	PQGCe		PArVAm	1
100C---------- Menahga sand, 6 to 12 percent slopes	PQGCe		PArVAm	1
100D---------- Menahga sand, 12 to 30 percent slopes	PQGCe		PArVAm	1
120B---------- Kost fine sand, 0 to 6 percent slopes	QAp			1
127D---------- Amery-Rosholt complex, 12 to 20 percent slopes, very stony		AVDe, AAt		1
127E---------- Amery-Rosholt complex, 20 to 45 percent slopes, very stony		AVDe, AAt		1
151A---------- Bluffton loam, 0 to 2 percent slopes	Lwmin			
152A---------- Alstad loam, 0 to 3 percent slopes	ASaI		ACaCi	1
154E---------- Cushing fine sandy loam, 20 to 35 percent slopes	ACaCi			1
156B---------- Magnor, very stony-Magnor complex, 0 to 4 percent slopes		ASaI, AAt		1
157B---------- Freeon, very stony-Freeon complex, 2 to 6 percent slopes	AAt		ACaCi	1
157C---------- Freeon, very stony-Freeon complex, 6 to 12 percent slopes	AAt		ACaCi	1
160A---------- Oesterle sandy loam, 0 to 2 percent slopes	ArVRp		AVDe	1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
165B Elderon sandy loam, 2 to 6 percent slopes	AVDe			1
185B Tradelake-Taylor complex, 1 to 6 percent slopes	AAt			1
185C Tradelake-Taylor complex, 6 to 12 percent slopes	AAt			1
185D Tradelake-Taylor complex, 12 to 25 percent slopes	AAt			1
185E Tradelake-Taylor complex, 25 to 35 percent slopes	AAt			1
189A Siren loam, 0 to 3 percent slopes	ASaI		AAt	1
193A Minocqua muck, 0 to 2 percent slopes	Lwmin			
337A Plover fine sandy loam, 0 to 3 percent slopes	ArVRp			1
368B Mahtomedi-Cress complex, 2 to 6 percent slopes		PArVAm, AVDe		1
368C Mahtomedi-Cress complex, 6 to 12 percent slopes		PArVAm, AVDe		1
368D Mahtomedi-Cress complex, 12 to 25 percent slopes		PArVAm, AVDe		1
368E Mahtomedi-Cress complex, 25 to 35 percent slopes		PArVAm, AVDe		1
380B Cress-Rosholt complex, 2 to 6 percent slopes		AVDe, AAt		1
380C Cress-Rosholt complex, 6 to 12 percent slopes		AVDe, AAt		1
380D Cress-Rosholt complex, 12 to 25 percent slopes		AVDe, AAt		1
383B Mahtomedi loamy sand, 0 to 6 percent slopes	PArVAm		PQGCe	1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
383C---------- Mahtomedi loamy sand, 6 to 12 percent slopes	PArVAm		PQGCe	1
383D---------- Mahtomedi loamy sand, 12 to 30 percent slopes	PArVAm		PQGCe	1
392C---------- Rockmarsh-Dairyland-Makwa, seeped, complex, 2 to 20 percent slopes, very stony		ArVRp, AVDe	Lwmin	1
396B---------- Friendship-Wurtsmith-Grayling complex, 0 to 6 percent slopes	PQGCe		PQGCe-Ap	1
397A---------- Perchlake loamy fine sand, 0 to 2 percent slopes	ArVRp		PArVAm	1
399B---------- Grayling sand, 0 to 6 percent slopes	PQGCe		PQGCe-Ap	1
399C---------- Grayling sand, 6 to 12 percent slopes	PQGCe		PQGCe-Ap	1
399D---------- Grayling sand, 12 to 30 percent slopes	PQGCe		PQGCe-Ap	1
406A---------- Loxley mucky peat, 0 to 1 percent slopes	Laorg			
407A---------- Seelyeville and Markey soils, 0 to 1 percent slopes	Lnorg			
410A---------- Seelyeville and Cathro soils, 0 to 1 percent slopes	Lnorg			
419A---------- Seelyeville, Cathro, and Markey soils, 0 to 1 percent slopes	Lnorg			
421A---------- Dora, Markey, and Seelyeville soils, 0 to 1 percent slopes	Lnorg			
422A---------- Seelyeville, Cathro, and Rondeau soils, 0 to 1 percent slopes	Lnorg			

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
426B Emmert-Mahtomedi-Menahga complex, 2 to 6 percent slopes	PArVAm			1
426C Emmert-Mahtomedi-Menahga complex, 6 to 12 percent slopes	PArVAm			1
426D Emmert-Mahtomedi-Menahga complex, 12 to 30 percent slopes	PArVAm			1
430A Freya loamy fine sand, 0 to 3 percent slopes	PArVAm			1
439B Graycalm-Menahga complex, 0 to 6 percent slopes	PArVAm		PQGCe	1
439C Graycalm-Menahga complex, 6 to 12 percent slopes	PArVAm		PQGCe	1
439D Graycalm-Menahga complex, 12 to 30 percent slopes	PArVAm		PQGCe	1
442C Haugen, very stony-Greenwood complex, 0 to 15 percent slopes		AAt, AVDe	Lnorg	1
443D Amery, very stony-Greenwood complex, 0 to 35 percent slopes		AVDe, AAt	Lnorg	1
459A Loxley, Daisybay, and Dawson soils, 0 to 1 percent slopes	Lnorg			
461A Bowstring muck, 0 to 1 percent slopes, frequently flooded	Lfp			
465A Newson-Meehan complex, 0 to 3 percent slopes		Lwmin, ArVrp		1
469E Bigisland-Milaca complex, 15 to 45 percent slopes, very stony		PArVAm, AAt		1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
471B Dairyland-Emmert complex, 0 to 6 percent slopes, very stony	AVDe			1
471C Dairyland-Emmert complex, 6 to 15 percent slopes, very stony	AVDe			1
472A Rockmarsh-Clemens complex, 0 to 2 percent slopes, very stony, frequently flooded	ASaI		AVDe	1
473A Dairyland-Skog complex, 0 to 3 percent slopes, very stony, rarely flooded	AVDe			1
484A Greenwood and Beseman soils, 0 to 1 percent slopes	Laorg			
485C Lupton and Tawas soils, seeped, 2 to 15 percent slopes	Lnorg			
495B Karlsborg-Grettum-Perida complex, 1 to 6 percent slopes	PArVAm			1
495C Karlsborg-Grettum-Perida complex, 6 to 12 percent slopes	PArVAm			1
495D Karlsborg-Grettum-Perida complex, 12 to 30 percent slopes	PArVAm			1
496B Karlsborg loamy sand, 1 to 6 percent slopes	PArVAm			1
496C Karlsborg loamy sand, 6 to 12 percent slopes	PArVAm			1
496D Karlsborg loamy sand, 12 to 30 percent slopes	PArVAm			1
497A Meenon loamy sand, 0 to 3 percent slopes		ArVRp, PArVAm		1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
521A---------- Dody muck, 0 to 2 percent slopes	Lwmin			1
523A---------- Nokasippi muck, 0 to 1 percent slopes	Lwmin			
529B---------- Perida sand, 0 to 4 percent slopes	PArVAm			1
531A---------- Stengel loamy sand, 0 to 3 percent slopes		ArVRp, PArVAm		1
542B---------- Haugen, very stony-Haugen complex, 2 to 6 percent slopes		AAt, AVDe		1
542C---------- Haugen, very stony-Haugen complex, 6 to 12 percent slopes		AAt, AVDe		1
544F---------- Menahga and Mahtomedi soils, 30 to 45 percent slopes	PArVAm		PQGCe	1
553B---------- Branstad fine sandy loam, 2 to 6 percent slopes	ACaCi			1
553C---------- Branstad fine sandy loam, 6 to 12 percent slopes	ACaCi			1
553D---------- Branstad fine sandy loam, 12 to 20 percent slopes	ACaCi			1
555A---------- Fordum silt loam, 0 to 2 percent slopes, frequently flooded	Lfp			
557B---------- Shawano fine sand, 0 to 6 percent slopes		QAp, PQGCe-Ap		1
557C---------- Shawano fine sand, 6 to 12 percent slopes		QAp, PQGCe-Ap		1
557D---------- Shawano fine sand, 12 to 30 percent slopes		QAp, PQGCe-Ap		1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
586A Chelmo sandy loam, 0 to 2 percent slopes	Lwmin			
600A. Haplosaprists and Psammaquents, 0 to 2 percent slopes				
615B Cress sandy loam, 0 to 6 percent slopes	AVDe			1
615C Cress sandy loam, 6 to 12 percent slopes	AVDe			1
615D Cress sandy loam, 12 to 30 percent slopes	AVDe			1
620C Lundeen-Haustrup-Rock outcrop complex, 2 to 12 percent slopes, very stony	PArVAm			1
621A Bjorkland peat, 0 to 2 percent slopes	Lwmin			
623A Capitola muck, 0 to 2 percent slopes, very stony	Lwmin			
624A Ossmer silt loam, 0 to 3 percent slopes	ASaI		AAt	1
631A Giese muck, 0 to 1 percent slopes, very stony	Lwmin			
632A Aftad fine sandy loam, 0 to 2 percent slopes	AAt		ACaCi	1
632B Aftad fine sandy loam, 2 to 6 percent slopes	AAt		ACaCi	1
632C Aftad fine sandy loam, 6 to 12 percent slopes	AAt		ACaCi	1
634C Drylanding-Beartree complex, 0 to 12 percent slopes, rocky	PArVAm		Lwmin	1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
635C--- Drylanding-Beartree complex, 0 to 12 percent slopes, rocky, rarely flooded	PArVAm		Lwmin	1
648B--- Sconsin silt loam, 1 to 6 percent slopes	ACaCi			1
669D--- Fremstadt, stony-Pomroy complex, 15 to 30 percent slopes	PArVAm			1
671B--- Spoonerhill, stony-Spoonerhill complex, 2 to 6 percent slopes	AVDe		PArVAm	1
706A--- Winterfield-Totagatic complex, 0 to 2 percent slopes, frequently flooded		ASaI, Lfp		1
715A--- Mora silt loam, 0 to 3 percent slopes, very stony	AAtRp		ACl	2
717B--- Milaca silt loam, 3 to 6 percent slopes, very stony	ACl		AAs	2
717C--- Milaca silt loam, 6 to 12 percent slopes, very stony	ACl		AAs	2
720F--- Haustrup-Lundeen-Rock outcrop complex, 12 to 65 percent slopes, very stony	PArVAm			1
726B--- Sissabagama loamy sand, 0 to 6 percent slopes		PArVAm, AVDe		1
742B--- Milaca sandy loam, 2 to 6 percent slopes, very stony	AVCl		ACl	2
742C--- Milaca sandy loam, 6 to 12 percent slopes, very stony	AVCl		ACl	2
742D--- Milaca sandy loam, 12 to 20 percent slopes, very stony	AVCl		ACl	2
755A--- Moppet, occasionally flooded-Fordum, frequently flooded, complex, 0 to 3 percent slopes	Lfp		ASaI	1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
771A Lenroot loamy sand, 0 to 3 percent slopes	PArVAm			1
812B Mora sandy loam, 0 to 4 percent slopes, very stony	AAtRp		AVCl	2
825A Meehan sand, 0 to 2 percent slopes	ArVRp			1
896A Wurtsmith sand, 0 to 3 percent slopes	PQGCe			1
980A Soderbeck very gravelly loam, 0 to 2 percent slopes, very stony, rarely flooded	AVDe			1
1070C Fremstadt, stony-Cress complex, 6 to 15 percent slopes		AVDe, PArVAm		1
1070D Fremstadt, stony-Cress complex, 15 to 30 percent slopes		AVDe, PArVAm		1
1080B Spoonerhill-Spoonerhill, stony-Cress complex, 1 to 6 percent slopes		AVDe, PArVAm		1
2002. Udorthents, earthen dams				
2015. Pits				
2050. Landfill				
3011A Barronett silt loam, 0 to 2 percent slopes	Lwmin			
3082E Braham-Shawano complex, 12 to 35 percent slopes	AAt			1
3114A. Saprists, Aquents, and Aquepts, 0 to 1 percent slopes, ponded, flooded				
3125A Meehan loamy sand, 0 to 2 percent slopes	ArVRp		PArVAm	1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
3126A---------- Wurtsmith loamy sand, 0 to 3 percent slopes	PArVAm			1
3312B---------- Glendenning, very stony-Glendenning complex, 0 to 4 percent slopes	ArVRp		AVDe	1
3336A---------- Fenander fine sandy loam, 0 to 2 percent slopes	Lwmin			
3403A---------- Loxley, Beseman, and Dawson soils, 0 to 1 percent slopes	Laorg			1
3429B---------- Lara loamy fine sand, 0 to 6 percent slopes	PArVAm			1
3429C---------- Lara loamy fine sand, 6 to 12 percent slopes	PArVAm			1
3446A---------- Newson muck, 0 to 2 percent slopes	Lwmin			1
3448B---------- Grettum loamy sand, 0 to 6 percent slopes	PArVAm			1
3448C---------- Grettum loamy sand, 6 to 12 percent slopes	PArVAm			1
3510B---------- Pomroy-Fremstadt-Fremstadt, stony, complex, 1 to 6 percent slopes	PArVAm			1
3510C---------- Pomroy-Fremstadt-Fremstadt, stony, complex, 6 to 15 percent slopes	PArVAm			1
3511A---------- Bushville loamy sand, 0 to 3 percent slopes	ArVRp		PArVAm	1
3516A---------- Slimlake sandy loam, 0 to 3 percent slopes		PArVAm, AVDe		1
3625A---------- Lino loamy fine sand, 0 to 2 percent slopes	ArVRp		PArVAm	1
3626A---------- Crex loamy fine sand, 0 to 3 percent slopes	QAp		PArVAm-Ap	1

Table 14.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Common habitat types	Region
3629B---------- Perida loamy sand, 0 to 4 percent slopes	PArVAm			1
3636B---------- Plainbo sand, 2 to 6 percent slopes	PQGCe			1
3636C---------- Plainbo sand, 6 to 12 percent slopes	PQGCe			1
M-W. Miscellaneous water				
W. Water				

Table 15a.--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 soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:						
Totagatic	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	Ponding	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
Bowstring	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	Content of organic matter	1.00	Content of organic matter	1.00
	Content of organic matter	1.00	Ponding	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
Ausable	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	Ponding	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
12A:						
Makwa	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	Ponding	1.00	Flooding	1.00
	Ponding	1.00	Too stony	0.50	Ponding	1.00
	Too stony	0.50	Flooding	0.40	Content of large stones	0.99
	Content of large stones	0.01	Content of large stones	0.01	Too stony	0.50
22A:						
Comstock	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
27A:						
Scott Lake	Not limited		Not limited		Somewhat limited	
					Gravel content	0.04
28B:						
Haugen, very stony	Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	0.60	Restricted permeability	0.60	Restricted permeability	0.60
	Too stony	0.50	Too stony	0.50	Slope	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
					Depth to saturated zone	0.39
					Gravel content	0.05

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
28B:						
Haugen	Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	0.60	Restricted permeability	0.60	Restricted permeability	0.60
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Slope	0.50
					Depth to saturated zone	0.39
					Gravel content	0.05
					Content of large stones	0.03
Rosholt, very stony	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Slope	0.50
					Too stony	0.50
					Gravel content	0.03
					Content of large stones	0.01
Rosholt	Not limited		Not limited		Somewhat limited	
					Slope	0.50
					Gravel content	0.04
28C:						
Haugen, very stony	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.60	Restricted permeability	0.60	Slope	1.00
	Too stony	0.50	Too stony	0.50	Restricted permeability	0.60
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
					Gravel content	0.05
Haugen	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.60	Restricted permeability	0.60	Slope	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Restricted permeability	0.60
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
					Gravel content	0.05
					Content of large stones	0.03
Rosholt, very stony	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Slope	0.04	Slope	0.04	Too stony	0.50
					Gravel content	0.03
					Content of large stones	0.01
Rosholt	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
					Gravel content	0.04
38A:						
Rosholt	Not limited		Not limited		Somewhat limited	
					Gravel content	0.04
38B:						
Rosholt	Not limited		Not limited		Somewhat limited	
					Slope	0.50
					Gravel content	0.04

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
38C:						
Rosholt	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
					Gravel content	0.04
38D:						
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.04
42D:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
					Gravel content	0.05
					Content of large stones	0.03
43B:						
Antigo	Not limited		Not limited		Somewhat limited	
					Slope	0.50
43C:						
Antigo	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
63A:						
Crystal Lake	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Restricted permeability	0.21	Depth to saturated zone	0.39
	Restricted permeability	0.21	Depth to saturated zone	0.19	Restricted permeability	0.21
63B:						
Crystal Lake	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Restricted permeability	0.21	Slope	0.50
	Restricted permeability	0.21	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Restricted permeability	0.21
63C:						
Crystal Lake	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.39	Restricted permeability	0.21	Slope	1.00
	Restricted permeability	0.21	Depth to saturated zone	0.19	Depth to saturated zone	0.39
	Slope	0.04	Slope	0.04	Restricted permeability	0.21
64A:						
Totagatic	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	Ponding	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
64A:						
Winterfield---------	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	Too sandy	0.79	Flooding	1.00
	Too sandy	0.79	Flooding	0.40	Too sandy	0.79
69C:						
Keweenaw----------	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.76	Too sandy	0.76	Slope	1.00
	Slope	0.16	Slope	0.16	Too sandy	0.76
					Content of large stones	0.01
Sayner----------	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.87	Too sandy	0.87	Slope	1.00
	Slope	0.16	Slope	0.16	Too sandy	0.87
					Content of large stones	0.05
					Gravel content	0.02
Vilas----------	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.87	Too sandy	0.87	Slope	1.00
	Slope	0.16	Slope	0.16	Too sandy	0.87
					Gravel content	0.04
69E:						
Keweenaw----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.76	Too sandy	0.76	Too sandy	0.76
					Content of large stones	0.01
Sayner----------	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
					Content of large stones	0.05
					Gravel content	0.02
Vilas----------	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	0.04
82B:						
Cutaway----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Slope	0.28
Branstad----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Slope	0.28

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
82C:						
Cutaway	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Slope	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too sandy	0.72
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
Branstad	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
83A:						
Smestad	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	1.00	Restricted permeability	1.00	Restricted permeability	1.00
	Too sandy	0.79	Too sandy	0.79	Too sandy	0.79
85B:						
Taylor	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Restricted permeability	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.99	Restricted permeability	1.00
					Slope	0.50
85C:						
Taylor	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Restricted permeability	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.99	Slope	1.00
	Slope	0.04	Slope	0.04	Restricted permeability	1.00
86A:						
Indus	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	1.00	Restricted permeability	1.00	Restricted permeability	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Alango	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	1.00	Restricted permeability	1.00	Restricted permeability	1.00
89A:						
Wildwood	Very limited		Very limited		Very limited	
	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
	Restricted permeability	0.98	Restricted permeability	0.98	Restricted permeability	0.98

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
96B:						
Karlsborg	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
	Depth to saturated zone	0.98	Restricted permeability	0.98	Depth to saturated zone	0.98
	Restricted permeability	0.98	Depth to saturated zone	0.75	Restricted permeability	0.98
					Slope	0.50
96C:						
Karlsborg	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Depth to saturated zone	0.98	Restricted permeability	0.98	Too sandy	1.00
	Restricted permeability	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
	Slope	0.04	Slope	0.04	Restricted permeability	0.98
96D:						
Karlsborg	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	1.00	Slope	1.00	Too sandy	1.00
	Depth to saturated zone	0.98	Restricted permeability	0.98	Depth to saturated zone	0.98
	Restricted permeability	0.98	Depth to saturated zone	0.75	Restricted permeability	0.98
100B:						
Menahga	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Slope	0.12
100C:						
Menahga	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
100D:						
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
120B:						
Kost	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Slope	0.12
127D:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
					Gravel content	0.05
					Content of large stones	0.03
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
					Gravel content	0.03
					Content of large stones	0.01

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
127E:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
					Gravel content	0.05
					Content of large stones	0.03
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
					Gravel content	0.03
					Content of large stones	0.01
151A:						
Bluffton	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
152A:						
Alstad	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
154E:						
Cushing	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.01	Too sandy	0.01	Too sandy	0.01
156B:						
Magnor, very stony	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 stony	0.50	Too stony	0.50	Too stony	0.50
	Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
					Content of large stones	0.01
Magnor	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
157B:						
Freeon, very stony	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 stony	0.50	Too stony	0.50	Slope	0.50
	Restricted permeability	0.43	Restricted permeability	0.43	Too stony	0.50
					Restricted permeability	0.43

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
157B:						
Freeon	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	Slope	0.50
					Restricted permeability	0.43
					Content of large stones	0.01
157C:						
Freeon, very stony	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 stony	0.50	Too stony	0.50	Slope	1.00
	Restricted permeability	0.43	Restricted permeability	0.43	Too stony	0.50
	Slope	0.04	Slope	0.04	Restricted permeability	0.43
Freeon	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	Slope	1.00
	Slope	0.04	Slope	0.04	Restricted permeability	0.43
					Content of large stones	0.01
160A:						
Oesterle	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
165B:						
Elderon	Not limited		Not limited		Somewhat limited	
					Slope	0.50
					Content of large stones	0.01
185B:						
Tradelake	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.98	Restricted permeability	0.98	Depth to saturated zone	0.98
	Restricted permeability	0.98	Depth to saturated zone	0.75	Restricted permeability	0.98
					Slope	0.50
Taylor	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Restricted permeability	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.99	Restricted permeability	1.00
					Slope	0.50
185C:						
Tradelake	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.98	Restricted permeability	0.98	Slope	1.00
	Restricted permeability	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
	Slope	0.04	Slope	0.04	Restricted permeability	0.98

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
185C:						
Taylor	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Restricted permeability	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.99	Slope	1.00
	Slope	0.04	Slope	0.04	Restricted permeability	1.00
185D:						
Tradelake	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.98	Restricted permeability	0.98	Restricted permeability	0.98
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
Taylor	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Restricted permeability	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Slope	1.00	Slope	1.00
	Slope	1.00	Depth to saturated zone	0.99	Restricted permeability	1.00
185E:						
Tradelake	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.98	Restricted permeability	0.98	Restricted permeability	0.98
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
Taylor	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00	Depth to saturated zone	1.00
	Slope	1.00	Restricted permeability	1.00	Slope	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.99	Restricted permeability	1.00
189A:						
Siren	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
					Gravel content	0.39
193A:						
Minocqua	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
337A:						
Plover	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	0.60	Restricted permeability	0.60	Restricted permeability	0.60

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
368B:						
Mahtomedi	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
					Slope	0.50
					Gravel content	0.04
Cress	Not limited		Not limited		Somewhat limited	
					Slope	0.50
368C:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	0.72
					Gravel content	0.04
Cress	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
368D:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
					Gravel content	0.04
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
368E:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
					Gravel content	0.04
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
380B:						
Cress	Not limited		Not limited		Somewhat limited	
					Slope	0.50
Rosholt	Not limited		Not limited		Somewhat limited	
					Slope	0.50
					Gravel content	0.04
380C:						
Cress	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
Rosholt	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
					Gravel content	0.04
380D:						
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.04

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
383B:						
Mahtomedi	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
					Slope	0.12
					Gravel content	0.04
383C:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	0.72
					Gravel content	0.04
383D:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
					Gravel content	0.04
392C:						
Rockmarsh	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 stony	0.50	Too stony	0.50	Content of large stones	1.00
	Slope	0.37	Slope	0.37	Slope	1.00
	Content of large stones	0.29	Content of large stones	0.29	Too stony	0.50
Dairyland	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Depth to saturated zone	0.39	Slope	0.37	Too stony	0.50
	Slope	0.37	Depth to saturated zone	0.19	Depth to saturated zone	0.39
Makwa	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 stony	0.50	Too stony	0.50	Slope	1.00
	Content of large stones	0.01	Content of large stones	0.01	Content of large stones	0.99
					Too stony	0.50
396B:						
Friendship	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
Wurtsmith	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Gravel content	0.06
Grayling	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Slope	0.12
397A:						
Perchlake	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

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
399B:						
Grayling----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Slope	0.12
399C:						
Grayling----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	1.00
399D:						
Grayling----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	1.00	Slope	1.00	Too sandy	1.00
406A:						
Loxley----------	Very limited		Very limited		Very limited	
	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
407A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	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----------	Very limited		Very limited		Very limited	
	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
410A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	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
Cathro----------	Very limited		Very limited		Very limited	
	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
419A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	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 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
419A:						
Cathro	Very limited		Very limited		Very limited	
	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	Very limited		Very limited		Very limited	
	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
421A:						
Dora	Very limited		Very limited		Very limited	
	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
	Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
Markey	Very limited		Very limited		Very limited	
	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
Seelyeville	Very limited		Very limited		Very limited	
	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
422A:						
Seelyeville	Very limited		Very limited		Very limited	
	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
Cathro	Very limited		Very limited		Very limited	
	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
Rondeau	Very limited		Very limited		Very limited	
	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 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
426B:						
Emmert	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.88	Too sandy	0.88	Too sandy	0.88
					Slope	0.50
					Gravel content	0.04
					Content of large stones	0.01
Mahtomedi	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
					Slope	0.50
					Gravel content	0.04
Menahga	Not limited		Not limited		Somewhat limited	
					Slope	0.50
426C:						
Emmert	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.88	Too sandy	0.88	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	0.88
					Gravel content	0.04
					Content of large stones	0.01
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	0.72
					Gravel content	0.04
Menahga	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
426D:						
Emmert	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.88	Too sandy	0.88	Too sandy	0.88
					Gravel content	0.04
					Content of large stones	0.01
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
					Gravel content	0.04
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
430A:						
Freya	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	0.88	Too sandy	0.88	Too sandy	0.88
439B:						
Graycalm	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.30	Too sandy	0.30	Too sandy	0.30
					Slope	0.12
Menahga	Not limited		Not limited		Somewhat limited	
					Slope	0.12

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
439C:						
Graycalm	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.30	Too sandy	0.30	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	0.30
Menahga	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
439D:						
Graycalm	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.30	Too sandy	0.30	Too sandy	0.30
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
442C:						
Haugen	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.60	Restricted permeability	0.60	Slope	1.00
	Too stony	0.50	Too stony	0.50	Restricted permeability	0.60
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
					Depth to saturated zone	0.39
					Gravel content	0.05
Greenwood	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
443D:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
					Gravel content	0.05
					Content of large stones	0.03
Greenwood	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
459A:						
Loxley	Very limited		Very limited		Very limited	
	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
Daisybay	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

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
459A:						
Dawson	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
461A:						
Bowstring	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	Content of organic matter	1.00	Content of organic matter	1.00
	Content of organic matter	1.00	Ponding	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
465A:						
Newson	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
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Too sandy	1.00	Depth to saturated zone	1.00
	Too sandy	1.00	Depth to saturated zone	1.00	Too sandy	1.00
469E:						
Bigisland	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.68	Too sandy	0.68	Content of large stones	1.00
	Gravel content	0.65	Gravel content	0.65	Gravel content	1.00
	Too stony	0.50	Too stony	0.50	Too sandy	0.68
	Content of large stones	0.16	Content of large stones	0.16	Too stony	0.50
Milaca	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
471B:						
Dairyland	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Too stony	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Slope	0.12
Emmert	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Gravel content	1.00
	Gravel content	0.10	Gravel content	0.10	Too stony	0.50
					Slope	0.12
					Content of large stones	0.01

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
471C:						
Dairyland	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Depth to saturated zone	0.39	Slope	0.37	Too stony	0.50
	Slope	0.37	Depth to saturated zone	0.19	Depth to saturated zone	0.39
Emmert	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.88	Too sandy	0.88	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too sandy	0.88
	Slope	0.37	Slope	0.37	Too stony	0.50
					Gravel content	0.04
					Content of large stones	0.01
472A:						
Rockmarsh	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	Too stony	0.50	Flooding	1.00
	Too stony	0.50	Flooding	0.40	Content of large stones	1.00
	Content of large stones	0.29	Content of large stones	0.29	Too stony	0.50
Clemens	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	Too stony	0.50	Flooding	1.00
	Too stony	0.50	Flooding	0.40	Too stony	0.50
473A:						
Dairyland	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Too stony	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
Skog	Very limited		Somewhat limited		Somewhat limited	
	Flooding	1.00	Too stony	0.50	Too stony	0.50
	Too stony	0.50				
484A:						
Greenwood	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
Beseman	Very limited		Very limited		Very limited	
	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
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
485C:						
Lupton	Very limited		Very limited		Very limited	
	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
					Slope	1.00
Tawas	Very limited		Very limited		Very limited	
	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	Slope	1.00
					Ponding	1.00
495B:						
Karlsborg	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.98	Restricted permeability	0.98	Depth to saturated zone	0.98
	Restricted permeability	0.98	Too sandy	0.81	Restricted permeability	0.98
	Too sandy	0.81	Depth to saturated zone	0.75	Too sandy	0.81
					Slope	0.50
Grettum	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
					Slope	0.50
Perida	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
					Slope	0.50
495C:						
Karlsborg	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.98	Restricted permeability	0.98	Slope	1.00
	Restricted permeability	0.98	Too sandy	0.81	Depth to saturated zone	0.98
	Too sandy	0.81	Depth to saturated zone	0.75	Restricted permeability	0.98
	Slope	0.04	Slope	0.04	Too sandy	0.81
Grettum	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.81	Too sandy	0.81	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	0.81
Perida	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.81	Too sandy	0.81	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	0.81
495D:						
Karlsborg	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.98	Restricted permeability	0.98	Depth to saturated zone	0.98
	Restricted permeability	0.98	Too sandy	0.81	Restricted permeability	0.98
	Too sandy	0.81	Depth to saturated zone	0.75	Too sandy	0.81

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
495D:						
Grettum	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
Perida	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
496B:						
Karlsborg	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.98	Restricted permeability	0.98	Depth to saturated zone	0.98
	Restricted permeability	0.98	Too sandy	0.81	Restricted permeability	0.98
	Too sandy	0.81	Depth to saturated zone	0.75	Too sandy	0.81
					Slope	0.50
496C:						
Karlsborg	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.98	Restricted permeability	0.98	Slope	1.00
	Restricted permeability	0.98	Too sandy	0.81	Depth to saturated zone	0.98
	Too sandy	0.81	Depth to saturated zone	0.75	Restricted permeability	0.98
	Slope	0.04	Slope	0.04	Too sandy	0.81
496D:						
Karlsborg	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.98	Restricted permeability	0.98	Depth to saturated zone	0.98
	Restricted permeability	0.98	Too sandy	0.81	Restricted permeability	0.98
	Too sandy	0.81	Depth to saturated zone	0.75	Too sandy	0.81
497A:						
Meenon	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	1.00	Restricted permeability	1.00	Restricted permeability	1.00
	Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
					Gravel content	0.06
521A:						
Dody	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	0.98	Restricted permeability	0.98	Restricted permeability	0.98
523A:						
Nokasippi	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 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
529B:						
Perida	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
531A:						
Stengel	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	0.81	Too sandy	0.81	Too sandy	0.81
542B:						
Haugen, very stony	Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	0.60	Restricted permeability	0.60	Restricted permeability	0.60
	Too stony	0.50	Too stony	0.50	Slope	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
					Depth to saturated zone	0.39
					Gravel content	0.05
Haugen	Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	0.60	Restricted permeability	0.60	Restricted permeability	0.60
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Slope	0.50
					Depth to saturated zone	0.39
					Gravel content	0.05
					Content of large stones	0.03
542C:						
Haugen, very stony	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.60	Restricted permeability	0.60	Slope	1.00
	Too stony	0.50	Too stony	0.50	Restricted permeability	0.60
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
					Gravel content	0.05
Haugen	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.60	Restricted permeability	0.60	Slope	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Restricted permeability	0.60
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
					Gravel content	0.05
					Content of large stones	0.03
544F:						
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
					Gravel content	0.04

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
553B:						
Branstad	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Slope	0.12
553C:						
Branstad	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
553D:						
Branstad	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
555A:						
Fordum	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	Ponding	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
					Gravel content	0.04
557B:						
Shawano	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Slope	0.12
557C:						
Shawano	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	1.00
557D:						
Shawano	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	1.00	Slope	1.00	Too sandy	1.00
586A:						
Chelmo	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	0.98	Restricted permeability	0.98	Restricted permeability	0.98
600A:						
Haplosaprists	Not rated		Not rated		Not rated	
Psammaquents	Not rated		Not rated		Not rated	
615B:						
Cress	Not limited		Not limited		Somewhat limited	
					Slope	0.12
615C:						
Cress	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
615D:						
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
620C:						
Lundeen	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
					Too stony	0.50
					Depth to bedrock	0.46
Haustrup	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too stony	0.50	Too stony	0.50	Slope	1.00
					Too stony	0.50
Rock outcrop	Not rated		Not rated		Not rated	
621A:						
Bjorkland	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	0.98	Restricted permeability	0.98	Restricted permeability	0.98
623A:						
Capitola	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 stony	0.50	Too stony	0.50	Too stony	0.50
624A:						
Ossmer	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
631A:						
Giese	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
	Too stony	0.50	Too stony	0.50	Too stony	0.50
632A:						
Aftad	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
632B:						
Aftad	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Slope	0.50
					Depth to saturated zone	0.39

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
632C:						
Aftad	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
634C:						
Drylanding	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Restricted permeability	1.00	Restricted permeability	1.00
	Restricted permeability	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Content of large stones	0.12	Content of large stones	0.12	Content of large stones	1.00
					Slope	1.00
					Gravel content	0.18
Beartree	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Rock outcrop	Not rated		Not rated		Not rated	
635C:						
Drylanding	Very limited		Very limited		Very limited	
	Flooding	1.00	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Restricted permeability	1.00	Content of large stones	0.12	Content of large stones	1.00
	Content of large stones	0.12			Slope	1.00
					Gravel content	0.18
Beartree	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	Depth to bedrock	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00				
Rock outcrop	Not rated		Not rated		Not rated	
648B:						
Sconsin	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	0.50
669D:						
Fremstadt, stony	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.50	Too sandy	0.50	Too sandy	0.50
	Too stony	0.50	Too stony	0.50	Too stony	0.50
					Gravel content	0.43

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
669D:						
Pomroy	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.50	Too sandy	0.50	Too sandy	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Gravel content	0.06
671B:						
Spoonerhill, stony	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Restricted permeability	0.21	Slope	0.50
	Restricted permeability	0.21	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Restricted permeability	0.21
					Content of large stones	0.05
					Gravel content	0.02
Spoonerhill	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Restricted permeability	0.21	Slope	0.50
	Restricted permeability	0.21	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Restricted permeability	0.21
					Gravel content	0.02
					Content of large stones	0.01
706A:						
Winterfield	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
Totagatic	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	Ponding	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
715A:						
Mora	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 stony	0.50	Too stony	0.50	Too stony	0.50
717B:						
Milaca	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Slope	0.88
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
					Depth to saturated zone	0.39
717C:						
Milaca	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
720F:						
Haustrup----------	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Slope	1.00	Slope	1.00	Depth to bedrock	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
Lundeen----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
					Depth to bedrock	0.46
Rock outcrop--------	Not rated		Not rated		Not rated	
726B:						
Sissabagama---------	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
					Slope	0.12
742B:						
Milaca----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Slope	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
					Depth to saturated zone	0.39
742C:						
Milaca----------	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
742D:						
Milaca----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too stony	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
755A:						
Moppet----------	Very limited		Not limited		Somewhat limited	
	Flooding	1.00			Flooding	0.60
Fordum----------	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	Ponding	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
					Gravel content	0.04
771A:						
Lenroot----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Gravel content	0.06

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
812B:						
Mora	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 stony	0.50	Too stony	0.50	Too stony	0.50
825A:						
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Too sandy	1.00	Depth to saturated zone	1.00
	Too sandy	1.00	Depth to saturated zone	1.00	Too sandy	1.00
896A:						
Wurtsmith	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Gravel content	0.06
980A:						
Soderbeck	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	Gravel content	0.97	Gravel content	1.00
	Gravel content	0.97	Too stony	0.50	Content of large stones	0.99
	Too stony	0.50	Content of large stones	0.01	Too stony	0.50
	Content of large stones	0.01				
1070C:						
Fremstadt	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
					Gravel content	0.43
Cress	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
1070D:						
Fremstadt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.43
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
1080B:						
Spoonerhill	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Restricted permeability	0.21	Slope	0.50
	Restricted permeability	0.21	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Restricted permeability	0.21
					Gravel content	0.02
					Content of large stones	0.01

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1080B:						
Spoonerhill, stony--	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Restricted permeability	0.21	Slope	0.50
	Restricted permeability	0.21	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Restricted permeability	0.21
					Content of large stones	0.05
					Gravel content	0.02
Cress----------	Not limited		Not limited		Somewhat limited	
					Slope	0.12
2002:						
Udorthents, earthen dams----------	Not rated		Not rated		Not rated	
2015:						
Pits----------	Not rated		Not rated		Not rated	
2050:						
Landfill----------	Not rated		Not rated		Not rated	
3011A:						
Barronett----------	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	0.21	Restricted permeability	0.21	Restricted permeability	0.21
3082E:						
Braham----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
Shawano----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	1.00	Slope	1.00	Too sandy	1.00
3114A:						
Saprists----------	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	Content of organic matter	1.00
	Content of organic matter	1.00	Content of organic matter	1.00	Ponding	1.00
Aquents----------	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
Aquepts----------	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

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3125A:						
Meehan	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	0.81	Too sandy	0.81	Too sandy	0.81
3126A:						
Wurtsmith	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.60	Too sandy	0.60	Too sandy	0.60
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Gravel content	0.06
3312B:						
Glendenning, very stony	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 stony	0.50	Too stony	0.50	Too stony	0.50
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
					Gravel content	0.05
					Content of large stones	0.03
Glendenning	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
					Gravel content	0.06
					Content of large stones	0.01
3336A:						
Fenander	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	0.21	Restricted permeability	0.21	Restricted permeability	0.21
3403A:						
Loxley	Very limited		Very limited		Very limited	
	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
Beseman	Very limited		Very limited		Very limited	
	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
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3403A:						
Dawson	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
3429B:						
Lara	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.98	Too sandy	0.76	Depth to saturated zone	0.98
	Too sandy	0.76	Depth to saturated zone	0.75	Too sandy	0.76
					Slope	0.12
3429C:						
Lara	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.98	Too sandy	0.76	Slope	1.00
	Too sandy	0.76	Depth to saturated zone	0.75	Depth to saturated zone	0.98
	Slope	0.04	Slope	0.04	Too sandy	0.76
3446A:						
Newson	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
3448B:						
Grettum	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
					Slope	0.12
3448C:						
Grettum	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.81	Too sandy	0.81	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	0.81
3510B:						
Pomroy	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.50	Too sandy	0.50	Slope	0.50
	Too stony	0.50	Too stony	0.50	Too sandy	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
					Depth to saturated zone	0.39
					Gravel content	0.06
Fremstadt	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.50	Too sandy	0.50	Slope	0.50
	Too stony	0.50	Too stony	0.50	Too sandy	0.50
					Too stony	0.50
					Gravel content	0.43
Fremstadt, stony	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.50	Too sandy	0.50	Slope	0.50
					Too sandy	0.50
					Gravel content	0.43

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3510C:						
Pomroy	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.50	Too sandy	0.50	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too sandy	0.50
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
	Slope	0.16	Slope	0.16	Depth to saturated zone	0.39
					Gravel content	0.06
Fremstadt	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.50	Too sandy	0.50	Slope	1.00
	Slope	0.16	Slope	0.16	Too sandy	0.50
					Gravel content	0.43
Fremstadt, stony	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.50	Too sandy	0.50	Slope	1.00
	Too stony	0.50	Too stony	0.50	Too sandy	0.50
	Slope	0.16	Slope	0.16	Too stony	0.50
					Gravel content	0.43
3511A:						
Bushville	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	0.30	Too sandy	0.30	Too sandy	0.30
3516A:						
Slimlake	Not limited		Not limited		Not limited	
3625A:						
Lino	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	0.31	Too sandy	0.31	Too sandy	0.31
3626A:						
Crex	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
3629B:						
Perida	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
3636B:						
Plainbo	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Gravel content	0.78
					Slope	0.50
					Depth to bedrock	0.46
3636C:						
Plainbo	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	1.00
					Gravel content	0.78
					Depth to bedrock	0.46

Table 15a.--Recreational Development--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water----------	Not rated		Not rated		Not rated	

Table 15b.--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 soil name	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
3A:						
Totagatic	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Ponding	1.00
Bowstring	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	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	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Ponding	1.00
Ausable	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Ponding	1.00
12A:						
Makwa	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Too stony	0.50	Too stony	0.50	Ponding	1.00
	Flooding	0.40	Flooding	0.40	Content of large stones	0.99
	Content of large stones	0.01	Content of large stones	0.01		
22A:						
Comstock	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
27A:						
Scott Lake	Not limited		Not limited		Somewhat limited	
					Droughty	0.01
28B:						
Haugen, very stony	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	0.19
					Content of large stones	0.03
Haugen	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
					Content of large stones	0.03

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
28B:						
Rosholt, very stony	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Droughty	0.02
					Content of large stones	0.01
Rosholt----------	Not limited		Not limited		Somewhat limited	
					Droughty	0.01
28C:						
Haugen, very stony--	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	0.19
					Slope	0.04
					Content of large stones	0.03
Haugen----------	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
					Slope	0.04
					Content of large stones	0.03
Rosholt, very stony	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Slope	0.04
					Droughty	0.02
					Content of large stones	0.01
Rosholt----------	Not limited		Not limited		Somewhat limited	
					Slope	0.04
					Droughty	0.01
38A:						
Rosholt----------	Not limited		Not limited		Somewhat limited	
					Droughty	0.01
38B:						
Rosholt----------	Not limited		Not limited		Somewhat limited	
					Droughty	0.01
38C:						
Rosholt----------	Not limited		Not limited		Somewhat limited	
					Slope	0.04
					Droughty	0.01
38D:						
Rosholt----------	Somewhat limited		Not limited		Very limited	
	Slope	0.02			Slope	1.00
					Droughty	0.01
42D:						
Amery----------	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Slope	0.02			Content of large stones	0.03
43B:						
Antigo----------	Not limited		Not limited		Not limited	

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
43C:						
Antigo	Very limited		Very limited		Somewhat limited	
	Water erosion	1.00	Water erosion	1.00	Slope	0.37
63A:						
Crystal Lake	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
63B:						
Crystal Lake	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
63C:						
Crystal Lake	Very limited		Very limited		Somewhat limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.19
					Slope	0.04
64A:						
Totagatic	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Ponding	1.00
Winterfield	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Too sandy	0.79	Too sandy	0.79	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Droughty	0.50
69C:						
Keweenaw	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.76	Too sandy	0.76	Slope	0.16
					Droughty	0.06
					Content of large stones	0.01
Sayner	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.87	Too sandy	0.87	Droughty	0.94
					Slope	0.16
					Content of large stones	0.05
Vilas	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.87	Too sandy	0.87	Droughty	0.42
					Slope	0.16
69E:						
Keweenaw	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Too sandy	0.76	Slope	1.00
	Too sandy	0.76	Slope	0.22	Droughty	0.06
					Content of large stones	0.01

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
69E:						
Sayner	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Too sandy	0.87	Slope	1.00
	Too sandy	0.87	Slope	0.22	Droughty	0.94
					Content of large stones	0.05
Vilas	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Too sandy	0.87	Slope	1.00
	Too sandy	0.87	Slope	0.22	Droughty	0.42
82B:						
Cutaway	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.72	Too sandy	0.72	Depth to saturated zone	0.19
Branstad	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
82C:						
Cutaway	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.72	Too sandy	0.72	Depth to saturated zone	0.19
					Slope	0.04
Branstad	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
					Slope	0.04
83A:						
Smestad	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	0.79	Too sandy	0.79		
85B:						
Taylor	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99	Depth to saturated zone	0.99
85C:						
Taylor	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.99
	Depth to saturated zone	0.99	Depth to saturated zone	0.99	Slope	0.04
86A:						
Indus	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
Alango	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 15b.--Recreational Development--Continued

Map symbol and soil name	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
89A:						
Wildwood	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
96B:						
Karlsborg	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Depth to saturated zone	0.75
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Too sandy	0.50
					Droughty	0.26
96C:						
Karlsborg	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Depth to saturated zone	0.75
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Too sandy	0.50
					Droughty	0.26
					Slope	0.04
96D:						
Karlsborg	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
	Slope	0.02			Too sandy	0.50
					Droughty	0.26
100B:						
Menahga	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.93
					Too sandy	0.50
100C:						
Menahga	Not limited		Not limited		Somewhat limited	
					Droughty	0.51
					Slope	0.04
100D:						
Menahga	Somewhat limited		Not limited		Very limited	
	Slope	0.68			Slope	1.00
					Droughty	0.51
120B:						
Kost	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.50
127D:						
Amery	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Slope	0.02			Content of large stones	0.03
Rosholt	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Slope	0.02			Droughty	0.02
					Content of large stones	0.01

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
127E:						
Amery	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.56	Slope	1.00
	Too stony	0.50	Too stony	0.50	Content of large stones	0.03
Rosholt	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.56	Slope	1.00
	Too stony	0.50	Too stony	0.50	Droughty	0.02
					Content of large stones	0.01
151A:						
Bluffton	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
152A:						
Alstad	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
154E:						
Cushing	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.04	Slope	1.00
	Too sandy	0.01	Too sandy	0.01		
156B:						
Magnor, very stony	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 stony	0.50	Too stony	0.50	Content of large stones	0.01
Magnor	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
157B:						
Freeon, very stony	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 stony	0.50	Too stony	0.50		
Freeon	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
					Content of large stones	0.01
157C:						
Freeon, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Water erosion	1.00	Water erosion	1.00	Slope	0.04
	Too stony	0.50	Too stony	0.50		

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
157C:						
Freeon	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Water erosion	1.00	Water erosion	1.00	Slope	0.04
					Content of large stones	0.01
160A:						
Oesterle	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
165B:						
Elderon	Not limited		Not limited		Somewhat limited	
					Droughty	0.94
					Content of large stones	0.01
185B:						
Tradelake	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
Taylor	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99	Depth to saturated zone	0.99
185C:						
Tradelake	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
Taylor	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.99
	Depth to saturated zone	0.99	Depth to saturated zone	0.99	Slope	0.04
185D:						
Tradelake	Somewhat limited		Not limited		Very limited	
	Slope	0.24			Slope	1.00
					Depth to saturated zone	0.19
Taylor	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Slope	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Slope	0.24				
185E:						
Tradelake	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.22	Slope	1.00
					Depth to saturated zone	0.19

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
185E:						
Taylor	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Depth to saturated zone	0.99	Slope	0.22		
189A:						
Siren	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
193A:						
Minocqua	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
337A:						
Plover	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
368B:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Droughty	1.00
Cress	Not limited		Not limited		Somewhat limited	
					Droughty	0.13
368C:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Droughty	1.00
					Slope	0.04
Cress	Not limited		Not limited		Somewhat limited	
					Droughty	0.13
					Slope	0.04
368D:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Slope	1.00
	Slope	0.50			Droughty	1.00
Cress	Somewhat limited		Not limited		Very limited	
	Slope	0.50			Slope	1.00
					Droughty	0.13
368E:						
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Too sandy	0.72	Slope	1.00
	Too sandy	0.72	Slope	0.22	Droughty	1.00
Cress	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.22	Slope	1.00
					Droughty	0.13

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
380B:						
Cress	Not limited		Not limited		Somewhat limited	
					Droughty	0.13
Rosholt	Not limited		Not limited		Somewhat limited	
					Droughty	0.01
380C:						
Cress	Not limited		Not limited		Somewhat limited	
					Droughty	0.13
					Slope	0.04
Rosholt	Not limited		Not limited		Somewhat limited	
					Slope	0.04
					Droughty	0.01
380D:						
Cress	Somewhat limited		Not limited		Very limited	
	Slope	0.68			Slope	1.00
					Droughty	0.13
Rosholt	Somewhat limited		Not limited		Very limited	
	Slope	0.68			Slope	1.00
					Droughty	0.01
383B:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Droughty	1.00
383C:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Droughty	1.00
					Slope	0.04
383D:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Slope	1.00
	Slope	0.68			Droughty	1.00
392C:						
Rockmarsh	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 stony	0.50	Too stony	0.50	Content of large stones	1.00
	Content of large stones	0.29	Content of large stones	0.29	Slope	0.37
					Droughty	0.01
Dairyland	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Slope	0.37
					Droughty	0.32
					Depth to saturated zone	0.19
Makwa	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 stony	0.50	Too stony	0.50	Content of large stones	0.99
	Content of large stones	0.01	Content of large stones	0.01		

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
396B:						
Friendship----------	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.91
					Too sandy	0.50
Wurtsmith----------	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.87
					Too sandy	0.50
					Depth to saturated zone	0.19
Grayling----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	1.00
					Too sandy	0.50
397A:						
Perchlake----------	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	Droughty	0.36
399B:						
Grayling----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	1.00
					Too sandy	0.50
399C:						
Grayling----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	1.00
					Too sandy	0.50
					Slope	0.04
399D:						
Grayling----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	1.00
	Slope	0.68			Slope	1.00
					Too sandy	0.50
406A:						
Loxley----------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
407A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Markey----------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
410A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Cathro----------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
419A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Cathro----------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Markey----------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
421A:						
Dora----------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Markey----------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Seelyeville---------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
422A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Cathro----------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Rondeau----------	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
426B:						
Emmert----------	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.88	Too sandy	0.88	Droughty	1.00
					Content of large stones	0.01
Mahtomedi----------	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Droughty	1.00
Menahga----------	Not limited		Not limited		Somewhat limited	
					Droughty	0.49
426C:						
Emmert----------	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.88	Too sandy	0.88	Droughty	1.00
					Slope	0.04
					Content of large stones	0.01
Mahtomedi----------	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Droughty	1.00
					Slope	0.04
Menahga----------	Not limited		Not limited		Somewhat limited	
					Droughty	0.49
					Slope	0.04
426D:						
Emmert----------	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.88	Too sandy	0.88	Droughty	1.00
	Slope	0.68			Slope	1.00
					Content of large stones	0.01
Mahtomedi----------	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Slope	1.00
	Slope	0.68			Droughty	1.00

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
426D:						
Menahga	Somewhat limited		Not limited		Very limited	
	Slope	0.68			Slope	1.00
					Droughty	0.49
430A:						
Freya	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	0.88	Too sandy	0.88	Droughty	0.20
439B:						
Graycalm	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.30	Too sandy	0.30	Droughty	0.29
Menahga	Not limited		Not limited		Somewhat limited	
					Droughty	0.49
439C:						
Graycalm	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.30	Too sandy	0.30	Droughty	0.29
					Slope	0.04
Menahga	Not limited		Not limited		Somewhat limited	
					Droughty	0.49
					Slope	0.04
439D:						
Graycalm	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.68	Too sandy	0.30	Slope	1.00
	Too sandy	0.30			Droughty	0.29
Menahga	Somewhat limited		Not limited		Very limited	
	Slope	0.68			Slope	1.00
					Droughty	0.49
442C:						
Haugen	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	0.19
					Content of large stones	0.03
Greenwood	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
443D:						
Amery	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Too stony	0.50	Slope	1.00
	Too stony	0.50			Content of large stones	0.03
Greenwood	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 15b.--Recreational Development--Continued

Map symbol and soil name	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
459A:						
Loxley	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Daisybay	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
Dawson	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
461A:						
Bowstring	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	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	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Ponding	1.00
465A:						
Newson	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
Meehan	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	1.00	Too sandy	1.00	Droughty	0.94
					Too sandy	0.50
469E:						
Bigisland	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Too sandy	0.68	Slope	1.00
	Too sandy	0.68	Too stony	0.50	Content of large stones	1.00
	Too stony	0.50	Slope	0.32		
	Content of large stones	0.16	Content of large stones	0.16	Droughty	0.99
					Gravel content	0.65
Milaca	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Too stony	0.50	Slope	1.00
	Too stony	0.50	Slope	0.32	Depth to saturated zone	0.19
471B:						
Dairyland	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Droughty	0.32
					Depth to saturated zone	0.19

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
471B:						
Emmert	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Droughty	1.00
					Gravel content	0.10
					Content of large stones	0.01
471C:						
Dairyland	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Slope	0.37
					Droughty	0.32
					Depth to saturated zone	0.19
Emmert	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.88	Too sandy	0.88	Droughty	1.00
	Too stony	0.50	Too stony	0.50	Slope	0.37
					Content of large stones	0.01
472A:						
Rockmarsh	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Content of large stones	1.00
	Content of large stones	0.29	Content of large stones	0.29	Droughty	0.01
Clemens	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40		
473A:						
Dairyland	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Droughty	0.32
					Depth to saturated zone	0.19
Skog	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Droughty	0.96
484A:						
Greenwood	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
Beseman	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
485C:						
Lupton	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
Tawas	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
495B:						
Karlsborg	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Depth to saturated zone	0.75
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Droughty	0.26
Grettum	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Droughty	0.61
Perida	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Droughty	0.44
495C:						
Karlsborg	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Depth to saturated zone	0.75
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Droughty	0.26
					Slope	0.04
Grettum	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Droughty	0.61
					Slope	0.04
Perida	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Droughty	0.44
					Slope	0.04
495D:						
Karlsborg	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.81	Too sandy	0.81	Slope	1.00
	Slope	0.68	Depth to saturated zone	0.44	Depth to saturated zone	0.75
	Depth to saturated zone	0.44			Droughty	0.26
Grettum	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.81	Too sandy	0.81	Slope	1.00
	Slope	0.68			Droughty	0.61
Perida	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.81	Too sandy	0.81	Slope	1.00
	Slope	0.68			Droughty	0.44
496B:						
Karlsborg	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Depth to saturated zone	0.75
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Droughty	0.26

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
496C:						
Karlsborg	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Depth to saturated zone	0.75
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Droughty	0.26
					Slope	0.04
496D:						
Karlsborg	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.81	Too sandy	0.81	Slope	1.00
	Slope	0.68	Depth to saturated zone	0.44	Depth to saturated zone	0.75
	Depth to saturated zone	0.44			Droughty	0.26
497A:						
Meenon	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	0.81	Too sandy	0.81	Droughty	0.41
521A:						
Dody	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
523A:						
Nokasippi	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
529B:						
Perida	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.62
					Too sandy	0.50
531A:						
Stengel	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	0.81	Too sandy	0.81	Droughty	1.00
542B:						
Haugen, very stony	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	0.19
					Content of large stones	0.03
Haugen	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
					Content of large stones	0.03

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
542C:						
Haugen, very stony--	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	0.19
					Slope	0.04
					Content of large stones	0.03
Haugen----------	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
					Slope	0.04
					Content of large stones	0.03
544F:						
Menahga----------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.96	Slope	1.00
					Droughty	0.51
Mahtomedi----------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.96	Slope	1.00
	Too sandy	0.72	Too sandy	0.72	Droughty	1.00
553B:						
Branstad----------	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
553C:						
Branstad----------	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
					Slope	0.04
553D:						
Branstad----------	Somewhat limited		Not limited		Very limited	
	Slope	0.02			Slope	1.00
					Depth to saturated zone	0.19
555A:						
Fordum----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Ponding	1.00
557B:						
Shawano----------	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.46
557C:						
Shawano----------	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.46
					Slope	0.04
557D:						
Shawano----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	0.68			Droughty	0.46

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
586A:						
Chelmo	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
600A:						
Haplosaprists	Not rated		Not rated		Not rated	
Psammaquents	Not rated		Not rated		Not rated	
615B:						
Cress	Not limited		Not limited		Somewhat limited	
					Droughty	0.13
615C:						
Cress	Not limited		Not limited		Somewhat limited	
					Droughty	0.13
					Slope	0.04
615D:						
Cress	Somewhat limited		Not limited		Very limited	
	Slope	0.68			Slope	1.00
					Droughty	0.13
620C:						
Lundeen	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Depth to bedrock	0.46
Haustrup	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Depth to bedrock	1.00
					Droughty	0.14
Rock outcrop	Not rated		Not rated		Not rated	
621A:						
Bjorkland	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
623A:						
Capitola	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 stony	0.50	Too stony	0.50		
624A:						
Ossmer	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
631A:						
Giese	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 stony	0.50	Too stony	0.50		

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
632A:						
Aftad	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
632B:						
Aftad	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
632C:						
Aftad	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
					Slope	0.04
634C:						
Drylanding	Somewhat limited		Somewhat limited		Very limited	
	Content of large stones	0.12	Content of large stones	0.12	Depth to bedrock	1.00
					Droughty	1.00
					Content of large stones	1.00
Beartree	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
					Ponding	1.00
					Droughty	0.95
Rock outcrop	Not rated		Not rated		Not rated	
635C:						
Drylanding	Somewhat limited		Somewhat limited		Very limited	
	Content of large stones	0.12	Content of large stones	0.12	Depth to bedrock	1.00
					Droughty	1.00
					Content of large stones	1.00
Beartree	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
					Ponding	1.00
					Droughty	0.95
Rock outcrop	Not rated		Not rated		Not rated	
648B:						
Sconsin	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
669D:						
Fremstadt, stony	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.82	Too sandy	0.50	Slope	1.00
	Too sandy	0.50	Too stony	0.50	Droughty	0.01
	Too stony	0.50				

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
669D:						
Pomroy	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.82	Too sandy	0.50	Slope	1.00
	Too sandy	0.50			Depth to saturated zone	0.19
671B:						
Spoonerhill, stony	Not limited		Not limited		Somewhat limited	
					Droughty	0.42
					Depth to saturated zone	0.19
					Content of large stones	0.05
Spoonerhill	Not limited		Not limited		Somewhat limited	
					Droughty	0.42
					Depth to saturated zone	0.19
					Content of large stones	0.01
706A:						
Winterfield	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
					Droughty	0.10
Totagatic	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Ponding	1.00
					Droughty	0.37
715A:						
Mora	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 stony	0.50	Too stony	0.50		
717B:						
Milaca	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	0.19
717C:						
Milaca	Very limited		Very limited		Somewhat limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.19
	Too stony	0.50	Too stony	0.50	Slope	0.04
720F:						
Haustrup	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Depth to bedrock	1.00
	Slope	0.18			Slope	1.00
					Droughty	0.14

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
720F:						
Lundeen	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Slope	0.18			Depth to bedrock	0.46
Rock outcrop	Not rated		Not rated		Not rated	
726B:						
Sissabagama	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Droughty	0.42
742B:						
Milaca	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	0.19
742C:						
Milaca	Somewhat limited		Somewhat limited		Somewhat limited	
	Too stony	0.50	Too stony	0.50	Depth to saturated zone	0.19
					Slope	0.04
742D:						
Milaca	Somewhat limited		Somewhat limited		Very limited	
	Too stony	0.50	Too stony	0.50	Slope	1.00
	Slope	0.02			Depth to saturated zone	0.19
755A:						
Moppet	Not limited		Not limited		Somewhat limited	
					Flooding	0.60
Fordum	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
	Ponding	1.00	Ponding	1.00		
	Flooding	0.40	Flooding	0.40	Ponding	1.00
771A:						
Lenroot	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.72	Too sandy	0.72	Droughty	0.99
					Depth to saturated zone	0.19
812B:						
Mora	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 stony	0.50	Too stony	0.50		
825A:						
Meehan	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	1.00	Too sandy	1.00	Droughty	0.94
					Too sandy	0.50

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
896A:						
Wurtsmith	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.94
					Too sandy	0.50
					Depth to saturated zone	0.19
980A:						
Soderbeck	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 stony	0.50	Too stony	0.50	Content of large stones	0.99
	Content of large stones	0.01	Content of large stones	0.01	Gravel content	0.97
					Droughty	0.61
1070C:						
Fremstadt	Not limited		Not limited		Somewhat limited	
					Slope	0.16
					Droughty	0.01
Cress	Not limited		Not limited		Somewhat limited	
					Droughty	0.13
					Slope	0.04
1070D:						
Fremstadt	Somewhat limited		Not limited		Very limited	
	Slope	0.92			Slope	1.00
					Droughty	0.01
Cress	Somewhat limited		Not limited		Very limited	
	Slope	0.68			Slope	1.00
					Droughty	0.13
1080B:						
Spoonerhill	Not limited		Not limited		Somewhat limited	
					Droughty	0.42
					Depth to saturated zone	0.19
					Content of large stones	0.01
Spoonerhill, stony	Not limited		Not limited		Somewhat limited	
					Droughty	0.42
					Depth to saturated zone	0.19
					Content of large stones	0.05
Cress	Not limited		Not limited		Somewhat limited	
					Droughty	0.13
2002:						
Udorthents, earthen dams	Not rated		Not rated		Not rated	
2015:						
Pits	Not rated		Not rated		Not rated	

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
2050:						
Landfill	Not rated		Not rated		Not rated	
3011A:						
Barronett	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
3082E:						
Braham	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.72	Too sandy	0.72	Slope	1.00
	Slope	0.50				
Shawano	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	1.00	Slope	0.01	Droughty	0.46
3114A:						
Saprists	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	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	Depth to saturated zone	1.00
Aquents	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
Aquepts	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
3125A:						
Meehan	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	0.81	Too sandy	0.81	Droughty	0.88
3126A:						
Wurtsmith	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.60	Too sandy	0.60	Droughty	0.83
					Depth to saturated zone	0.19
3312B:						
Glendenning, very stony	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 stony	0.50	Too stony	0.50	Content of large stones	0.03
Glendenning	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
					Content of large stones	0.01

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
3336A:						
Fenander	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
3403A:						
Loxley	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Beseman	Very limited		Very limited		Very limited	
	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	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Dawson	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
3429B:						
Lara	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.76	Too sandy	0.76	Depth to saturated zone	0.75
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Droughty	0.27
3429C:						
Lara	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.76	Too sandy	0.76	Depth to saturated zone	0.75
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Droughty	0.27
					Slope	0.04
3446A:						
Newson	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
3448B:						
Grettum	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Droughty	0.61
3448C:						
Grettum	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Droughty	0.61
					Slope	0.04
3510B:						
Pomroy	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.50	Too sandy	0.50	Depth to saturated zone	0.19
	Too stony	0.50	Too stony	0.50		

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
3510B:						
Fremstadt----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.50	Too sandy	0.50	Droughty	0.01
	Too stony	0.50	Too stony	0.50		
Fremstadt, stony----	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.50	Too sandy	0.50	Droughty	0.01
3510C:						
Pomroy----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.50	Too sandy	0.50	Depth to saturated zone	0.19
	Too stony	0.50	Too stony	0.50		
					Slope	0.16
Fremstadt----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.50	Too sandy	0.50	Slope	0.16
					Droughty	0.01
Fremstadt, stony----	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.50	Too sandy	0.50	Slope	0.16
	Too stony	0.50	Too stony	0.50	Droughty	0.01
3511A:						
Bushville----------	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	0.30	Too sandy	0.30		
3516A:						
Slimlake----------	Not limited		Not limited		Somewhat limited	
					Droughty	0.21
3625A:						
Lino----------	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	0.31	Too sandy	0.31	Droughty	0.19
3626A:						
Crex----------	Not limited		Not limited		Somewhat limited	
					Droughty	0.23
					Depth to saturated zone	0.19
3629B:						
Perida----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.81	Too sandy	0.81	Droughty	0.44
3636B:						
Plainbo----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	1.00
					Too sandy	0.50
					Depth to bedrock	0.46
3636C:						
Plainbo----------	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	1.00
					Too sandy	0.50
					Depth to bedrock	0.46
					Slope	0.04

Table 15b.--Recreational Development--Continued

Map symbol and soil name	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
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water----------	Not rated		Not rated		Not rated	

Table 16.--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 soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
3A:										
Totagatic	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Bowstring	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Ausable	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
12A:										
Makwa	Very poor	Very poor	Good	Fair	Fair	Good	Good	Fair	Fair	Good
22A:										
Comstock	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
27A:										
Scott Lake	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
28B:										
Haugen, very stony	Very poor	Poor	Good	Good	Good	Poor	Very poor	Poor	Good	Very poor
Haugen	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Rosholt, very stony	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Rosholt	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
28C:										
Haugen, very stony	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Haugen	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Rosholt, very stony	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Rosholt	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
38A:										
Rosholt	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
38B:										
Rosholt	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
38C:										
Rosholt	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	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
38D:										
Rosholt	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
42D:										
Amery	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
43B:										
Antigo	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
43C:										
Antigo	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
63A:										
Crystal Lake	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
63B:										
Crystal Lake	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
63C:										
Crystal Lake	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
64A:										
Totagatic	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Winterfield	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
69C:										
Keweenaw	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Sayner	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Vilas	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
69E:										
Keweenaw	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Sayner	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Vilas	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
82B:										
Cutaway	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Branstad	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
82C:										
Cutaway	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Branstad	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
83A:										
Smestad	Fair	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
85B:										
Taylor	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
85C:										
Taylor	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
86A:										
Indus	Poor	Fair	Fair	Fair	Fair	Good	Poor	Fair	Fair	Good
Alango	Fair	Good	Good	Good	Good	Poor	Good	Good	Good	Poor
89A:										
Wildwood	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
96B:										
Karlsborg	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
96C:										
Karlsborg	Poor	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
96D:										
Karlsborg	Poor	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
100B:										
Menahga	Poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
100C:										
Menahga	Poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
100D:										
Menahga	Very poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
120B:										
Kost	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
127D:										
Amery	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Rosholt	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	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
127E:										
Amery	Very poor	Very poor	Good	Good	Good	Very poor	Very poor	Poor	Fair	Very poor
Rosholt	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
151A:										
Bluffton	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
152A:										
Alstad	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
154E:										
Cushing	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
156B:										
Magnor, very stony	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Magnor	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
157B:										
Freeon, very stony	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Freeon	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
157C:										
Freeon, very stony	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Freeon	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
160A:										
Oesterle	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
165B:										
Elderon	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
185B:										
Tradelake	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Taylor	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
185C:										
Tradelake	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Taylor	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
185D:										
Tradelake	Poor	Fair	Good	Good	Good	Very poor	Very poor	Good	Good	Poor
Taylor	Poor	Fair	Good	Good	Good	Very poor	Very poor	Good	Good	Poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
185E:										
Tradelake	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Taylor	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
189A:										
Siren	Fair	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
193A:										
Minocqua	Very poor	Fair	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
337A:										
Plover	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
368B:										
Mahtomedi	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Fair	Fair	Very poor
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
368C:										
Mahtomedi	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Fair	Fair	Very poor
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
368D:										
Mahtomedi	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Fair	Fair	Very poor
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
368E:										
Mahtomedi	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Fair	Fair	Very poor
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
380B:										
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Rosholt	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
380C:										
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Rosholt	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	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
380D:										
Cress	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
Rosholt	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
383B:										
Mahtomedi	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Fair	Fair	Very poor
383C:										
Mahtomedi	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Fair	Fair	Very poor
383D:										
Mahtomedi	Very poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
392C:										
Rockmarsh	Very poor	Poor	Good	Fair	Fair	Very poor	Very poor	Very poor	Poor	Very poor
Dairyland	Very poor	Poor	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor
Makwa	Very poor	Poor	Very poor	Fair	Fair	Poor	Very poor	Very poor	Poor	Very poor
396B:										
Friendship	Poor	Poor	Fair	Fair	Good	Poor	Very poor	Fair	Good	Very poor
Wurtsmith	Poor	Poor	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Very poor
Grayling	Poor	Poor	Fair	Poor	Poor	Poor	Very poor	Poor	Poor	Very poor
397A:										
Perchlake	Poor	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
399B:										
Grayling	Poor	Poor	Fair	Poor	Fair	Poor	Very poor	Poor	Fair	Very poor
399C:										
Grayling	Poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
399D:										
Grayling	Very poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
406A:										
Loxley	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
407A:										
Seelyeville	Very poor	Very poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Markey	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
410A:										
Seelyeville	Very poor	Very poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Cathro	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
419A:										
Seelyeville	Very poor	Very poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Cathro	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Markey	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
421A:										
Dora	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Markey	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Seelyeville	Very poor	Very poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
422A:										
Seelyeville	Very poor	Very poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Cathro	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Rondeau	Poor	Poor	Poor	Very poor	Very poor	Good	Good	Poor	Very poor	Good
426B:										
Emmert	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor
Mahtomedi	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Fair	Fair	Very poor
Menahga	Poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
426C:										
Emmert	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor
Mahtomedi	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Fair	Fair	Very poor
Menahga	Poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
426D:										
Emmert	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	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
426D:										
Mahtomedi	Very poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
Menahga	Poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
430A:										
Freya	Poor	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
439B:										
Graycalm	Poor	Poor	Fair	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Menahga	Poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
439C:										
Graycalm	Poor	Poor	Fair	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Menahga	Poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
439D:										
Graycalm	Poor	Poor	Fair	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Menahga	Poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
442C:										
Haugen	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Greenwood	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
443D:										
Amery	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Greenwood	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
459A:										
Loxley	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Daisybay	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Dawson	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
461A:										
Bowstring	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
465A:										
Newson	Fair	Fair	Fair	Poor	Poor	Good	Good	Fair	Poor	Good
Meehan	Poor	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
469E:										
Bigisland	Very poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
Milaca	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
471B:										
Dairyland	Very poor	Poor	Very poor	Poor	Poor	Poor	Very poor	Very poor	Poor	Very poor
Emmert	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor
471C:										
Dairyland	Very poor	Poor	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor
Emmert	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor
472A:										
Rockmarsh	Very poor	Poor	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
Clemens	Very poor	Poor	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
473A:										
Dairyland	Very poor	Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Skog	Very poor	Poor	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Poor
484A:										
Greenwood	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Beseman	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
485C:										
Lupton	Very poor	Poor	Poor	Poor	Poor	Poor	Very poor	Poor	Poor	Very poor
Tawas	Very poor	Poor	Poor	Poor	Poor	Poor	Very poor	Poor	Poor	Very poor
495B:										
Karlsborg	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Grettum	Poor	Poor	Fair	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Perida	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	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
495C:										
Karlsborg	Poor	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Grettum	Poor	Poor	Fair	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Perida	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Poor
495D:										
Karlsborg	Poor	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Grettum	Poor	Poor	Fair	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Perida	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Poor
496B:										
Karlsborg	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
496C:										
Karlsborg	Poor	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
496D:										
Karlsborg	Poor	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
497A:										
Meenon	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
521A:										
Dody	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
523A:										
Nokasippi	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
529B:										
Perida	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Poor
531A:										
Stengel	Poor	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
542B:										
Haugen, very stony	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Haugen	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
542C:										
Haugen, very stony	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Haugen	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
544F:										
Menahga	Very poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
544F:										
Mahtomedi	Very poor	Poor	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
553B:										
Branstad	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
553C:										
Branstad	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
553D:										
Branstad	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
555A:										
Fordum	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
557B:										
Shawano	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
557C:										
Shawano	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
557D:										
Shawano	Very poor	Very poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
586A:										
Chelmo	Fair	Fair	Fair	Good	Good	Fair	Good	Fair	Good	Good
600A:										
Haplosaprists.										
Psammaquents.										
615B:										
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
615C:										
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
615D:										
Cress	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
620C:										
Lundeen	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Haustrup	Poor	Poor	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Very poor
Rock outcrop.										

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	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
621A:										
Bjorkland	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
623A:										
Capitola	Very poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
624A:										
Ossmer	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
631A:										
Giese	Very poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
632A:										
Aftad	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
632B:										
Aftad	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
632C:										
Aftad	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
634C:										
Drylanding	Poor	Poor	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Poor
Beartree	Poor	Very poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
Rock outcrop.										
635C:										
Drylanding	Poor	Poor	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Poor
Beartree	Poor	Very poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
Rock outcrop.										
648B:										
Sconsin	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
669D:										
Fremstadt, stony	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Pomroy	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
671B:										
Spoonerhill, stony	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
671B:										
Spoonerhill	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
706A:										
Winterfield	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
Totagatic	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
715A:										
Mora	Very poor	Poor	Good	Good	Good	Fair	Fair	Poor	Good	Fair
717B:										
Milaca	Very poor	Poor	Good	Good	Good	Poor	Very poor	Poor	Good	Poor
717C:										
Milaca	Very poor	Poor	Good	Good	Good	Poor	Very poor	Poor	Good	Poor
720F:										
Haustrup	Poor	Poor	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Very poor
Lundeen	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Rock outcrop.										
726B:										
Sissabagama	Poor	Fair	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Very poor
742B:										
Milaca	Very poor	Poor	Good	Good	Good	Poor	Very poor	Poor	Good	Poor
742C:										
Milaca	Very poor	Good	Good	Good	Good	Poor	Very poor	Poor	Good	Poor
742D:										
Milaca	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Fair	Very poor
755A:										
Moppet	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Fordum	Very poor	Very poor	Poor	Fair	Fair	Good	Good	Very poor	Fair	Good
771A:										
Lenroot	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Fair	Fair	Very poor
812B:										
Mora	Very poor	Good	Good	Good	Good	Fair	Very poor	Poor	Good	Fair

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	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
825A:										
Meehan	Poor	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
896A:										
Wurtsmith	Poor	Poor	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Very poor
980A:										
Soderbeck	Very poor	Poor	Good	Fair	Fair	Fair	Fair	Poor	Fair	Fair
1070C:										
Fremstadt	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
1070D:										
Fremstadt	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Cress	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
1080B:										
Spoonerhill	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
Spoonerhill, stony	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
Cress	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
2002. Udorthents, earthen dams										
2015. Pits										
2050. Landfill										
3011A:										
Barronett	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
3082E:										
Braham	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Shawano	Very poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
3114A:										
Saprists	Very poor	Very poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
Aquents	Very poor	Very poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
3114A:										
Aquepts	Very poor	Very poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good
3125A:										
Meehan	Poor	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
3126A:										
Wurtsmith	Poor	Poor	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Very poor
3312B:										
Glendenning, very stony	Fair	Fair	Good	Good	Good	Fair	Poor	Good	Good	Fair
Glendenning	Fair	Fair	Good	Good	Good	Fair	Poor	Good	Good	Fair
3336A:										
Fenander	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
3403A:										
Loxley	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Beseman	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Dawson	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
3429B:										
Lara	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Poor
3429C:										
Lara	Poor	Fair	Good	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
3446A:										
Newson	Fair	Fair	Fair	Poor	Poor	Good	Good	Fair	Poor	Good
3448B:										
Grettum	Poor	Poor	Fair	Good	Good	Very poor	Very poor	Poor	Good	Very poor
3448C:										
Grettum	Poor	Poor	Fair	Good	Good	Very poor	Very poor	Poor	Good	Very poor
3510B:										
Pomroy	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
Fremstadt	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
Fremstadt, stony	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
3510C:										
Pomroy	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor

Table 16.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
3510C:										
Fremstadt	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Fremstadt, stony	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
3511A:										
Bushville	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Poor
3516A:										
Slimlake	Fair	Fair	Good	Good	Good	Poor	Poor	Fair	Good	Poor
3625A:										
Lino	Poor	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
3626A:										
Crex	Poor	Fair	Good	Poor	Fair	Poor	Very poor	Fair	Poor	Very poor
3629B:										
Perida	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Poor
3636B:										
Plainbo	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
3636C:										
Plainbo	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
M-W.										
Miscellaneous water										
W.										
Water										

Table 17a.--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 soil name	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
3A:						
Totagatic	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
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Bowstring	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
Ausable	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
	Ponding	1.00	Ponding	1.00	Ponding	1.00
12A:						
Makwa	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
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Content of large stones	0.11	Content of large stones	0.11	Content of large stones	0.11
22A:						
Comstock	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
27A:						
Scott Lake	Not limited		Very limited		Not limited	
			Depth to saturated zone	0.99		
28B:						
Haugen, very stony	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
Haugen	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 17a.--Building Site Development--Continued

Map symbol and soil name	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
28B:						
Rosholt, very stony	Not limited		Not limited		Not limited	
Rosholt----------	Not limited		Not limited		Not limited	
28C:						
Haugen, very stony--	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
Haugen----------	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
Rosholt, very stony	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
Rosholt----------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
38A:						
Rosholt----------	Not limited		Not limited		Not limited	
38B:						
Rosholt----------	Not limited		Not limited		Not limited	
38C:						
Rosholt----------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
38D:						
Rosholt----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
42D:						
Amery----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
43B:						
Antigo----------	Not limited		Not limited		Not limited	
43C:						
Antigo----------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
63A:						
Crystal Lake--------	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
	Depth to saturated zone	0.39			Depth to saturated zone	0.39
63B:						
Crystal Lake--------	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
	Depth to saturated zone	0.39			Depth to saturated zone	0.39

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
63C:						
Crystal Lake	Somewhat limited		Very limited		Very limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.39	Slope	0.04	Shrink-swell	0.50
	Slope	0.04			Depth to saturated zone	0.39
64A:						
Totagatic	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
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Winterfield	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
69C:						
Keweenaw	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
Sayner	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
Vilas	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
69E:						
Keweenaw	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Sayner	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Vilas	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
82B:						
Cutaway	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
	Depth to saturated zone	0.39			Depth to saturated zone	0.39
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
82C:						
Cutaway	Somewhat limited		Very limited		Very limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.39	Slope	0.04	Shrink-swell	0.50
	Slope	0.04			Depth to saturated zone	0.39
Branstad	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
83A:						
Smestad	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
85B:						
Taylor	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
85C:						
Taylor	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
	Slope	0.04	Slope	0.04	Slope	1.00
86A:						
Indus	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
Alango	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
89A:						
Wildwood	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
96B:						
Karlsborg	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
96C:						
Karlsborg	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.98
96D:						
Karlsborg	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.98	Slope	1.00	Depth to saturated zone	0.98
100B:						
Menahga	Not limited		Not limited		Not limited	
100C:						
Menahga	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
100D:						
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
120B:						
Kost	Not limited		Not limited		Not limited	
127D:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
127E:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
151A:						
Bluffton	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
152A:						
Alstad	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
154E:						
Cushing	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
156B:						
Magnor, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Magnor	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
157B:						
Freeon, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Freeon	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 17a.--Building Site Development--Continued

Map symbol and soil name	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
157C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	0.04	Slope	0.04	Slope	1.00
Freeon----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	0.04	Slope	0.04	Slope	1.00
160A:						
Oesterle----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
165B:						
Elderon----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Content of large stones	0.14	Content of large stones	0.14	Content of large stones	0.14
185B:						
Tradelake----------	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
Taylor----------	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
185C:						
Tradelake----------	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
Taylor----------	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
	Slope	0.04	Slope	0.04	Slope	1.00
185D:						
Tradelake----------	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Slope	1.00
	Slope	1.00	Shrink-swell	1.00	Shrink-swell	1.00
	Depth to saturated zone	0.39	Slope	1.00	Depth to saturated zone	0.39
Taylor----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
	Shrink-swell	1.00	Shrink-swell	1.00	Depth to saturated zone	1.00
	Slope	1.00	Slope	1.00	Shrink-swell	1.00

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
185E:						
Tradelake	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
	Depth to saturated zone	0.39	Shrink-swell	1.00	Depth to saturated zone	0.39
Taylor	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	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
189A:						
Siren	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
193A:						
Minocqua	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
337A:						
Plover	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
368B:						
Mahtomedi	Not limited		Not limited		Not limited	
Cress	Not limited		Not limited		Not limited	
368C:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
Cress	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
368D:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
368E:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
380B:						
Cress	Not limited		Not limited		Not limited	
Rosholt	Not limited		Not limited		Not limited	

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
380C:						
Cress	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
Rosholt	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
380D:						
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
383B:						
Mahtomedi	Not limited		Not limited		Not limited	
383C:						
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
383D:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
392C:						
Rockmarsh	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of large stones	0.88	Content of large stones	0.88	Slope	1.00
	Slope	0.37	Slope	0.37	Content of large stones	0.88
Dairyland	Somewhat limited		Very limited		Very limited	
	Content of large stones	0.60	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.39	Content of large stones	0.60	Content of large stones	0.60
	Slope	0.37	Slope	0.37	Depth to saturated zone	0.39
Makwa	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of large stones	0.11	Content of large stones	0.11	Slope	0.88
					Content of large stones	0.11
396B:						
Friendship	Not limited		Somewhat limited		Not limited	
			Depth to saturated zone	0.35		
Wurtsmith	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
Grayling	Not limited		Not limited		Not limited	

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
397A:						
Perchlake	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
399B:						
Grayling	Not limited		Not limited		Not limited	
399C:						
Grayling	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
399D:						
Grayling	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
406A:						
Loxley	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
407A:						
Seelyeville	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	Very limited		Very limited		Very limited	
	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
410A:						
Seelyeville	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
Cathro	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

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
419A:						
Seelyeville---------	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
Cathro----------	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
Markey----------	Very limited		Very limited		Very limited	
	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
421A:						
Dora----------	Very limited		Very limited		Very limited	
	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
Markey----------	Very limited		Very limited		Very limited	
	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
Seelyeville---------	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
422A:						
Seelyeville---------	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

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
422A:						
Cathro	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
Rondeau	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
426B:						
Emmert	Not limited		Not limited		Not limited	
Mahtomedi	Not limited		Not limited		Not limited	
Menahga	Not limited		Not limited		Not limited	
426C:						
Emmert	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
Mahtomedi	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
Menahga	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
426D:						
Emmert	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
430A:						
Freya	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
439B:						
Graycalm	Not limited		Not limited		Not limited	
Menahga	Not limited		Not limited		Not limited	
439C:						
Graycalm	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
Menahga	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
439D:						
Graycalm	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
442C:						
Haugen	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	0.88
					Depth to saturated zone	0.39
Greenwood	Very limited		Very limited		Very limited	
	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
443D:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Greenwood	Very limited		Very limited		Very limited	
	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
459A:						
Loxley	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
Daisybay	Very limited		Very limited		Very limited	
	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	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Dawson	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

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
461A:						
Bowstring	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
465A:						
Newson	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
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
469E:						
Bigisland	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Content of large stones	0.61	Content of large stones	0.61	Content of large stones	0.61
Milaca	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
471B:						
Dairyland	Somewhat limited		Very limited		Somewhat limited	
	Content of large stones	0.60	Depth to saturated zone	1.00	Content of large stones	0.60
	Depth to saturated zone	0.39	Content of large stones	0.60	Depth to saturated zone	0.39
Emmert	Not limited		Not limited		Not limited	
471C:						
Dairyland	Somewhat limited		Very limited		Very limited	
	Content of large stones	0.60	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.39	Content of large stones	0.60	Content of large stones	0.60
	Slope	0.37	Slope	0.37	Depth to saturated zone	0.39
Emmert	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
472A:						
Rockmarsh	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
	Content of large stones	0.88	Content of large stones	0.88	Content of large stones	0.88

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
472A:						
Clemens	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
	Content of large stones	0.23	Content of large stones	0.23	Content of large stones	0.23
473A:						
Dairyland	Somewhat limited		Very limited		Somewhat limited	
	Content of large stones	0.60	Depth to saturated zone	1.00	Content of large stones	0.60
	Depth to saturated zone	0.39	Content of large stones	0.60	Depth to saturated zone	0.39
Skog	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
			Depth to saturated zone	0.99		
484A:						
Greenwood	Very limited		Very limited		Very limited	
	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
Beseman	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Subsidence	1.00	Content of organic matter	1.00
	Subsidence	1.00	Ponding	1.00	Subsidence	1.00
	Ponding	1.00			Ponding	1.00
485C:						
Lupton	Very limited		Very limited		Very limited	
	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
					Slope	1.00
Tawas	Very limited		Very limited		Very limited	
	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			Slope	1.00
					Ponding	1.00
495B:						
Karlsborg	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
Grettum	Not limited		Somewhat limited		Not limited	
			Depth to saturated zone	0.35		

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
495B:						
Perida	Not limited		Somewhat limited		Not limited	
			Depth to saturated zone	0.82		
495C:						
Karlsborg	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.98
Grettum	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Depth to saturated zone	0.35	Slope	1.00
			Slope	0.04		
Perida	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Depth to saturated zone	0.82	Slope	1.00
			Slope	0.04		
495D:						
Karlsborg	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.98	Slope	1.00	Depth to saturated zone	0.98
Grettum	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Depth to saturated zone	0.35		
Perida	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Depth to saturated zone	0.82		
496B:						
Karlsborg	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
496C:						
Karlsborg	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.98
496D:						
Karlsborg	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.98	Slope	1.00	Depth to saturated zone	0.98
497A:						
Meenon	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 17a.--Building Site Development--Continued

Map symbol and soil name	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
521A:						
Dody	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
523A:						
Nokasippi	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
529B:						
Perida	Not limited		Somewhat limited		Not limited	
			Depth to saturated zone	0.82		
531A:						
Stengel	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
542B:						
Haugen, very stony	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
Haugen	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
542C:						
Haugen, very stony	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
Haugen	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
544F:						
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
553B:						
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
553C:						
Branstad	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
553D:						
Branstad	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.39	Slope	1.00	Depth to saturated zone	0.39
555A:						
Fordum	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
	Ponding	1.00	Ponding	1.00	Ponding	1.00
557B:						
Shawano	Not limited		Not limited		Not limited	
557C:						
Shawano	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
557D:						
Shawano	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
586A:						
Chelmo	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	Ponding	1.00	Shrink-swell	1.00
	Ponding	1.00			Ponding	1.00
600A:						
Haplosaprists	Not rated		Not rated		Not rated	
Psammaquents	Not rated		Not rated		Not rated	
615B:						
Cress	Not limited		Not limited		Not limited	
615C:						
Cress	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
615D:						
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
620C:						
Lundeen	Somewhat limited		Very limited		Somewhat limited	
	Depth to hard bedrock	0.46	Depth to hard bedrock	1.00	Slope	0.88
					Depth to hard bedrock	0.46
Haustrup	Very limited		Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
					Slope	0.88
Rock outcrop	Not rated		Not rated		Not rated	

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
621A:						
Bjorkland	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	Shrink-swell	1.00	Ponding	1.00
			Ponding	1.00		
623A:						
Capitola	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
624A:						
Ossmer	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
631A:						
Giese	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
632A:						
Aftad	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
632B:						
Aftad	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
632C:						
Aftad	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
634C:						
Drylanding	Very limited		Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
	Content of large stones	0.39	Content of large stones	0.39	Slope	0.88
					Content of large stones	0.39
Beartree	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
	Content of large stones	1.00	Content of large stones	1.00	Content of large stones	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Rock outcrop	Not rated		Not rated		Not rated	

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
635C:						
Drylanding----------	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
	Content of large stones	0.39	Content of large stones	0.39	Slope	0.88
					Content of large stones	0.39
Beartree----------	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
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
	Content of large stones	1.00	Content of large stones	1.00	Content of large stones	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Rock outcrop--------	Not rated		Not rated		Not rated	
648B:						
Sconsin----------	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
669D:						
Fremstadt, stony----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Pomroy----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
671B:						
Spoonerhill, stony--	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
Spoonerhill---------	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
706A:						
Winterfield---------	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
Totagatic----------	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
	Ponding	1.00	Ponding	1.00	Ponding	1.00
715A:						
Mora----------	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 17a.--Building Site Development--Continued

Map symbol and soil name	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
717B:						
Milaca	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
					Slope	0.12
717C:						
Milaca	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
720F:						
Haustrup	Very limited		Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
	Slope	1.00	Slope	1.00	Depth to hard bedrock	1.00
Lundeen	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
	Depth to hard bedrock	0.46	Slope	1.00	Depth to hard bedrock	0.46
Rock outcrop	Not rated		Not rated		Not rated	
726B:						
Sissabagama	Not limited		Very limited		Not limited	
			Depth to saturated zone	0.99		
742B:						
Milaca	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
742C:						
Milaca	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.39
742D:						
Milaca	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.39	Slope	1.00	Depth to saturated zone	0.39
755A:						
Moppet	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
			Depth to saturated zone	0.99		
Fordum	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
	Ponding	1.00	Ponding	1.00	Ponding	1.00

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
771A:						
Lenroot	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
812B:						
Mora	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
825A:						
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
896A:						
Wurtsmith	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
980A:						
Soderbeck	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
	Content of large stones	0.45	Content of large stones	0.45	Content of large stones	0.45
			Depth to hard bedrock	0.42		
1070C:						
Fremstadt	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
Cress	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Slope	0.04	Slope	1.00
1070D:						
Fremstadt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
1080B:						
Spoonerhill	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
Spoonerhill, stony	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
Cress	Not limited		Not limited		Not limited	
2002:						
Udorthents, earthen dams	Not rated		Not rated		Not rated	

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
2015:						
Pits	Not rated		Not rated		Not rated	
2050:						
Landfill	Not rated		Not rated		Not rated	
3011A:						
Barronett	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
3082E:						
Braham	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Shawano	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
3114A:						
Saprists	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
Aquents	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
Aquepts	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
3125A:						
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
3126A:						
Wurtsmith	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
3312B:						
Glendenning, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Glendenning	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 17a.--Building Site Development--Continued

Map symbol and soil name	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
3336A:						
Fenander	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
3403A:						
Loxley	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
Beseman	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Subsidence	1.00	Content of organic matter	1.00
	Subsidence	1.00	Ponding	1.00	Subsidence	1.00
	Ponding	1.00			Ponding	1.00
Dawson	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
3429B:						
Lara	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
3429C:						
Lara	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.98	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.98
3446A:						
Newson	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
3448B:						
Grettum	Not limited		Somewhat limited		Not limited	
			Depth to saturated zone	0.35		
3448C:						
Grettum	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Depth to saturated zone	0.35	Slope	1.00
			Slope	0.04		

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
3510B:						
Pomroy	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
Fremstadt	Not limited		Not limited		Not limited	
Fremstadt, stony	Not limited		Not limited		Not limited	
3510C:						
Pomroy	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.16	Slope	0.16	Depth to saturated zone	0.39
Fremstadt	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
Fremstadt, stony	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
3511A:						
Bushville	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
3516A:						
Slimlake	Not limited		Very limited		Not limited	
			Depth to saturated zone	0.99		
3625A:						
Lino	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
3626A:						
Crex	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
3629B:						
Perida	Not limited		Somewhat limited		Not limited	
			Depth to saturated zone	0.82		
3636B:						
Plainbo	Not limited		Somewhat limited		Not limited	
			Depth to soft bedrock	0.46		
3636C:						
Plainbo	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.04	Depth to soft bedrock	0.46	Slope	1.00
			Slope	0.04		

Table 17a.--Building Site Development--Continued

Map symbol and soil name	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
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water----------	Not rated		Not rated		Not rated	

Table 17b.--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 soil name	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
3A:						
Totagatic	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Subsidence	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	0.80		
	Frost action	0.50				
Bowstring	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Subsidence	1.00	Cutbanks cave	1.00	Content of organic matter	1.00
	Frost action	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Flooding	0.80		
Ausable	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Subsidence	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	0.80		
	Frost action	0.50				
12A:						
Makwa	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	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	0.80	Content of large stones	0.99
	Content of large stones	0.11	Content of large stones	0.11		
22A:						
Comstock	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		
	Low strength	1.00				
	Shrink-swell	0.50				
27A:						
Scott Lake	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
			Depth to saturated zone	0.99		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
28B:						
Haugen, very stony--	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Content of large stones	0.03
Haugen----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Content of large stones	0.03
Rosholt, very stony	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.02
					Content of large stones	0.01
Rosholt----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
28C:						
Haugen, very stony--	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04	Content of large stones	0.03
Haugen----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04	Content of large stones	0.03
Rosholt, very stony	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04	Droughty	0.02
					Content of large stones	0.01
Rosholt----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04	Droughty	0.01
38A:						
Rosholt----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
38B:						
Rosholt----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
38C:						
Rosholt----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04	Droughty	0.01

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
38D:						
Rosholt----------	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
	Frost action	0.50	Slope	1.00	Droughty	0.01
42D:						
Amery----------	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
	Frost action	0.50	Slope	1.00	Content of large stones	0.03
43B:						
Antigo----------	Somewhat limited		Very limited		Not limited	
	Frost action	0.50	Cutbanks cave	1.00		
43C:						
Antigo----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Slope	0.37
	Slope	0.37	Slope	0.37		
63A:						
Crystal Lake--------	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Low strength	1.00	Cutbanks cave	1.00		
	Shrink-swell	0.50				
	Depth to saturated zone	0.19				
63B:						
Crystal Lake--------	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Low strength	1.00	Cutbanks cave	1.00		
	Shrink-swell	0.50				
	Depth to saturated zone	0.19				
63C:						
Crystal Lake--------	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Low strength	1.00	Cutbanks cave	1.00	Slope	0.04
	Shrink-swell	0.50	Slope	0.04		
	Depth to saturated zone	0.19				
	Slope	0.04				
64A:						
Totagatic----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Subsidence	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	0.80		
	Frost action	0.50				
Winterfield---------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
			Flooding	0.80	Droughty	0.50

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
69C:						
Keweenaw	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.16	Cutbanks cave	1.00	Slope	0.16
			Slope	0.16	Droughty	0.06
					Content of large stones	0.01
Sayner	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.16	Cutbanks cave	1.00	Droughty	0.94
			Slope	0.16	Slope	0.16
					Content of large stones	0.05
Vilas	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.16	Cutbanks cave	1.00	Droughty	0.42
			Slope	0.16	Slope	0.16
69E:						
Keweenaw	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	0.06
					Content of large stones	0.01
Sayner	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	0.94
					Content of large stones	0.05
Vilas	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	0.42
82B:						
Cutaway	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00		
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	0.10		
82C:						
Cutaway	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04		
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	0.10	Slope	0.04
	Slope	0.04	Slope	0.04		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
83A:						
Smestad	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	Too clayey	1.00		
			Cutbanks cave	1.00		
85B:						
Taylor	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Low strength	1.00	Too clayey	1.00		
	Depth to saturated zone	0.99	Cutbanks cave	0.10		
	Frost action	0.50				
85C:						
Taylor	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Low strength	1.00	Too clayey	1.00	Slope	0.04
	Depth to saturated zone	0.99	Cutbanks cave	0.10		
	Frost action	0.50	Slope	0.04		
	Slope	0.04				
86A:						
Indus	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	1.00	Ponding	1.00
	Low strength	1.00	Ponding	1.00		
	Shrink-swell	1.00	Cutbanks cave	0.10		
	Ponding	1.00				
Alango	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Too clayey	1.00		
	Frost action	1.00	Cutbanks cave	0.10		
	Low strength	1.00				
89A:						
Wildwood	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Frost action	1.00	Too clayey	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Ponding	1.00	Ponding	1.00
	Shrink-swell	1.00	Cutbanks cave	0.10		
	Ponding	1.00				
96B:						
Karlsborg	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Too clayey	1.00	Too sandy	0.50
			Cutbanks cave	1.00	Droughty	0.26

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
96C:						
Karlsborg	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Too clayey	1.00	Too sandy	0.50
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.26
			Slope	0.04	Slope	0.04
96D:						
Karlsborg	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.75	Too clayey	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Cutbanks cave	1.00	Too sandy	0.50
			Slope	1.00	Droughty	0.26
100B:						
Menahga	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.93
					Too sandy	0.50
100C:						
Menahga	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.51
			Slope	0.04	Slope	0.04
100D:						
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.51
120B:						
Kost	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.50
127D:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
	Frost action	0.50	Slope	1.00	Content of large stones	0.03
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
	Frost action	0.50	Slope	1.00	Droughty	0.02
					Content of large stones	0.01
127E:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	1.00	Content of large stones	0.03
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.02
					Content of large stones	0.01

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
151A:						
Bluffton----------	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				
152A:						
Alstad----------	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				
154E:						
Cushing----------	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				
156B:						
Magnor, very stony--	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	Dense layer	0.50	Content of large stones	0.01
			Cutbanks cave	0.10		
Magnor----------	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	Dense layer	0.50		
			Cutbanks cave	0.10		
157B:						
Freeon, very stony--	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	Dense layer	0.50		
			Cutbanks cave	0.10		
Freeon----------	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	Dense layer	0.50	Content of large stones	0.01
			Cutbanks cave	0.10		
157C:						
Freeon, very stony--	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	Dense layer	0.50	Slope	0.04
	Slope	0.04	Cutbanks cave	0.10		
			Slope	0.04		
Freeon----------	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	Dense layer	0.50	Slope	0.04
	Slope	0.04	Cutbanks cave	0.10	Content of large stones	0.01
			Slope	0.04		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
160A:						
Oesterle----------	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		
165B:						
Elderon----------	Somewhat limited		Very limited		Somewhat limited	
	Content of large stones	0.14	Cutbanks cave	1.00	Droughty	0.94
			Content of large stones	0.14	Content of large stones	0.01
185B:						
Tradelake----------	Very limited		Very limited		Somewhat limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Low strength	1.00	Too clayey	1.00		
	Depth to saturated zone	0.75	Cutbanks cave	1.00		
	Frost action	0.50				
Taylor----------	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Low strength	1.00	Too clayey	1.00		
	Depth to saturated zone	0.99	Cutbanks cave	0.10		
	Frost action	0.50				
185C:						
Tradelake----------	Very limited		Very limited		Somewhat limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Low strength	1.00	Too clayey	1.00	Slope	0.04
	Depth to saturated zone	0.75	Cutbanks cave	1.00		
	Frost action	0.50	Slope	0.04		
	Slope	0.04				
Taylor----------	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Low strength	1.00	Too clayey	1.00	Slope	0.04
	Depth to saturated zone	0.99	Cutbanks cave	0.10		
	Frost action	0.50	Slope	0.04		
	Slope	0.04				
185D:						
Tradelake----------	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Slope	1.00
	Low strength	1.00	Too clayey	1.00	Depth to saturated zone	0.19
	Slope	1.00	Cutbanks cave	1.00		
	Frost action	0.50	Slope	1.00		
	Depth to saturated zone	0.19				
Taylor----------	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Slope	1.00
	Low strength	1.00	Too clayey	1.00	Depth to saturated zone	0.99
	Slope	1.00	Slope	1.00		
	Depth to saturated zone	0.99	Cutbanks cave	0.10		
	Frost action	0.50				

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
185E:						
Tradelake	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Slope	1.00	Slope	1.00
	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Low strength	1.00	Too clayey	1.00		
	Frost action	0.50	Cutbanks cave	1.00		
	Depth to saturated zone	0.19				
Taylor	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Slope	1.00	Slope	1.00
	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Low strength	1.00	Too clayey	1.00		
	Depth to saturated zone	0.99	Cutbanks cave	0.10		
	Frost action	0.50				
189A:						
Siren	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Too clayey	0.88		
	Shrink-swell	1.00	Cutbanks cave	0.10		
	Frost action	0.50				
193A:						
Minocqua	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		
337A:						
Plover	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		
368B:						
Mahtomedi	Not limited		Very limited		Very limited	
			Cutbanks cave	1.00	Droughty	1.00
Cress	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.13
368C:						
Mahtomedi	Somewhat limited		Very limited		Very limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	1.00
			Slope	0.04	Slope	0.04
Cress	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.13
			Slope	0.04	Slope	0.04
368D:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	1.00

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
368D:						
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.13
368E:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	1.00
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	0.13
380B:						
Cress	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.13
Rosholt	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.01
380C:						
Cress	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.13
			Slope	0.04	Slope	0.04
Rosholt	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04	Droughty	0.01
380D:						
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.13
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
	Frost action	0.50	Slope	1.00	Droughty	0.01
383B:						
Mahtomedi	Not limited		Very limited		Very limited	
			Cutbanks cave	1.00	Droughty	1.00
383C:						
Mahtomedi	Somewhat limited		Very limited		Very limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	1.00
			Slope	0.04	Slope	0.04
383D:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	1.00

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
392C:						
Rockmarsh	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of large stones	0.88	Cutbanks cave	1.00	Content of large stones	1.00
	Frost action	0.50	Content of large stones	0.88	Slope	0.37
	Slope	0.37	Dense layer	0.50	Droughty	0.01
			Slope	0.37		
Dairyland	Somewhat limited		Very limited		Somewhat limited	
	Content of large stones	0.60	Depth to saturated zone	1.00	Slope	0.37
	Slope	0.37	Cutbanks cave	1.00	Droughty	0.32
	Depth to saturated zone	0.19	Content of large stones	0.60	Depth to saturated zone	0.19
			Dense layer	0.50		
			Slope	0.37		
Makwa	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	Content of large stones	0.99
	Content of large stones	0.11	Content of large stones	0.11		
396B:						
Friendship	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.91
			Depth to saturated zone	0.35	Too sandy	0.50
Wurtsmith	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.19	Depth to saturated zone	1.00	Droughty	0.87
			Cutbanks cave	1.00	Too sandy	0.50
					Depth to saturated zone	0.19
Grayling	Not limited		Very limited		Very limited	
			Cutbanks cave	1.00	Droughty	1.00
					Too sandy	0.50
397A:						
Perchlake	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Cutbanks cave	1.00	Droughty	0.36
399B:						
Grayling	Not limited		Very limited		Very limited	
			Cutbanks cave	1.00	Droughty	1.00
					Too sandy	0.50
399C:						
Grayling	Somewhat limited		Very limited		Very limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	1.00
			Slope	0.04	Too sandy	0.50
					Slope	0.04

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
399D:						
Grayling----------	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Droughty	1.00
			Slope	1.00	Slope	1.00
					Too sandy	0.50
406A:						
Loxley----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Frost action	1.00	Cutbanks cave	0.10		
407A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Frost action	1.00	Cutbanks cave	0.10		
Markey----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
			Content of organic matter	1.00		
410A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Frost action	1.00	Cutbanks cave	0.10		
Cathro----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Cutbanks cave	0.10		
419A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Frost action	1.00	Cutbanks cave	0.10		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
419A:						
Cathro	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Cutbanks cave	0.10		
Markey	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
			Content of organic matter	1.00		
421A:						
Dora	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Frost action	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Content of organic matter	1.00	Ponding	1.00
			Cutbanks cave	0.10		
			Too clayey	0.04		
Markey	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
			Content of organic matter	1.00		
Seelyeville	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Frost action	1.00	Cutbanks cave	0.10		
422A:						
Seelyeville	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Frost action	1.00	Cutbanks cave	0.10		
Cathro	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Cutbanks cave	0.10		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
422A:						
Rondeau	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Cutbanks cave	0.10		
426B:						
Emmert	Not limited		Very limited		Very limited	
			Cutbanks cave	1.00	Droughty	1.00
					Content of large stones	0.01
Mahtomedi	Not limited		Very limited		Very limited	
			Cutbanks cave	1.00	Droughty	1.00
Menahga	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.49
426C:						
Emmert	Somewhat limited		Very limited		Very limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	1.00
			Slope	0.04	Slope	0.04
					Content of large stones	0.01
Mahtomedi	Somewhat limited		Very limited		Very limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	1.00
			Slope	0.04	Slope	0.04
Menahga	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.49
			Slope	0.04	Slope	0.04
426D:						
Emmert	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Droughty	1.00
			Slope	1.00	Slope	1.00
					Content of large stones	0.01
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	1.00
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.49
430A:						
Freya	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 clayey	1.00	Droughty	0.20
			Cutbanks cave	1.00		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
439B:						
Graycalm	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.29
Menahga	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.49
439C:						
Graycalm	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.29
			Slope	0.04	Slope	0.04
Menahga	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.49
			Slope	0.04	Slope	0.04
439D:						
Graycalm	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.29
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.49
442C:						
Haugen	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Content of large stones	0.03
Greenwood	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	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00		
			Cutbanks cave	0.10		
443D:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	1.00	Content of large stones	0.03
Greenwood	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	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00		
			Cutbanks cave	0.10		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
459A:						
Loxley	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Frost action	1.00	Cutbanks cave	0.10		
Daisybay	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	Content of organic matter	1.00		
			Cutbanks cave	0.10		
			Too clayey	0.03		
Dawson	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Cutbanks cave	1.00	Ponding	1.00
	Frost action	1.00	Ponding	1.00		
	Ponding	1.00	Content of organic matter	1.00		
461A:						
Bowstring	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Subsidence	1.00	Cutbanks cave	1.00	Content of organic matter	1.00
	Frost action	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Flooding	0.80		
465A:						
Newson	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		
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Cutbanks cave	1.00	Droughty	0.94
					Too sandy	0.50
469E:						
Bigisland	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Content of large stones	0.61	Cutbanks cave	1.00	Content of large stones	1.00
			Content of large stones	0.61	Droughty	0.99
			Dense layer	0.50	Gravel content	0.65

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
469E:						
Milaca	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Dense layer	0.50		
			Cutbanks cave	0.10		
471B:						
Dairyland	Somewhat limited		Very limited		Somewhat limited	
	Content of large stones	0.60	Depth to saturated zone	1.00	Droughty	0.32
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Depth to saturated zone	0.19
			Content of large stones	0.60		
			Dense layer	0.50		
Emmert	Not limited		Very limited		Very limited	
			Cutbanks cave	1.00	Droughty	1.00
					Gravel content	0.10
					Content of large stones	0.01
471C:						
Dairyland	Somewhat limited		Very limited		Somewhat limited	
	Content of large stones	0.60	Depth to saturated zone	1.00	Slope	0.37
	Slope	0.37	Cutbanks cave	1.00	Droughty	0.32
	Depth to saturated zone	0.19	Content of large stones	0.60	Depth to saturated zone	0.19
			Dense layer	0.50		
			Slope	0.37		
Emmert	Somewhat limited		Very limited		Very limited	
	Slope	0.37	Cutbanks cave	1.00	Droughty	1.00
			Slope	0.37	Slope	0.37
					Content of large stones	0.01
472A:						
Rockmarsh	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Content of large stones	0.88	Content of large stones	0.88	Content of large stones	1.00
	Frost action	0.50	Flooding	0.80	Droughty	0.01
			Dense layer	0.50		
Clemens	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Frost action	0.50	Flooding	0.80		
	Content of large stones	0.23	Content of large stones	0.23		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
473A:						
Dairyland----------	Somewhat limited		Very limited		Somewhat limited	
	Content of large stones	0.60	Depth to saturated zone	1.00	Droughty	0.32
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Depth to saturated zone	0.19
			Content of large stones	0.60		
			Dense layer	0.50		
Skog----------	Somewhat limited		Very limited		Somewhat limited	
	Flooding	0.40	Cutbanks cave	1.00	Droughty	0.96
			Depth to saturated zone	0.99		
484A:						
Greenwood----------	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	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00		
			Cutbanks cave	0.10		
Beseman----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Frost action	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Cutbanks cave	0.10		
485C:						
Lupton----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Frost action	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
			Cutbanks cave	0.10		
Tawas----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
			Content of organic matter	1.00		
495B:						
Karlsborg----------	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Too clayey	1.00	Droughty	0.26
			Cutbanks cave	1.00		
Grettum----------	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.61
			Depth to saturated zone	0.35		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
495B:						
Perida	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.44
			Too clayey	1.00		
			Depth to saturated zone	0.82		
495C:						
Karlsborg	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Too clayey	1.00	Droughty	0.26
	Slope	0.04	Cutbanks cave	1.00	Slope	0.04
			Slope	0.04		
Grettum	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.61
			Depth to saturated zone	0.35	Slope	0.04
			Slope	0.04		
Perida	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.44
	Slope	0.04	Too clayey	1.00	Slope	0.04
			Depth to saturated zone	0.82		
			Slope	0.04		
495D:						
Karlsborg	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.75	Too clayey	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.26
			Slope	1.00		
Grettum	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.61
			Depth to saturated zone	0.35		
Perida	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
	Frost action	0.50	Slope	1.00	Droughty	0.44
			Too clayey	1.00		
			Depth to saturated zone	0.82		
496B:						
Karlsborg	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Too clayey	1.00	Droughty	0.26
			Cutbanks cave	1.00		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
496C:						
Karlsborg	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Too clayey	1.00	Droughty	0.26
	Slope	0.04	Cutbanks cave	1.00	Slope	0.04
			Slope	0.04		
496D:						
Karlsborg	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	0.75	Too clayey	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.26
			Slope	1.00		
497A:						
Meenon	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	Too clayey	1.00	Droughty	0.41
			Cutbanks cave	1.00		
521A:						
Dody	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
	Low strength	1.00	Too clayey	1.00		
	Shrink-swell	1.00	Ponding	1.00		
	Ponding	1.00				
523A:						
Nokasippi	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		
			Dense layer	0.50		
529B:						
Perida	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.62
			Too clayey	1.00	Too sandy	0.50
			Depth to saturated zone	0.82		
531A:						
Stengel	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Cutbanks cave	1.00	Droughty	1.00
			Too clayey	1.00		
542B:						
Haugen, very stony	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Content of large stones	0.03

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
542B:						
Haugen	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Content of large stones	0.03
542C:						
Haugen, very stony	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04	Content of large stones	0.03
Haugen	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04	Content of large stones	0.03
544F:						
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	0.51
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	1.00
553B:						
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	0.10		
553C:						
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	0.10	Slope	0.04
	Slope	0.04	Slope	0.04		
553D:						
Branstad	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Frost action	0.50	Slope	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	0.10		
555A:						
Fordum	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	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	0.80		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
557B:						
Shawano	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.46
557C:						
Shawano	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.46
			Slope	0.04	Slope	0.04
557D:						
Shawano	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.46
586A:						
Chelmo	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
	Low strength	1.00	Too clayey	1.00		
	Shrink-swell	1.00	Ponding	1.00		
	Ponding	1.00				
600A:						
Haplosaprists	Not rated		Not rated		Not rated	
Psammaquents	Not rated		Not rated		Not rated	
615B:						
Cress	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.13
615C:						
Cress	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.13
			Slope	0.04	Slope	0.04
615D:						
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.13
620C:						
Lundeen	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to hard bedrock	1.00	Depth to bedrock	0.46
	Depth to hard bedrock	0.46	Cutbanks cave	0.10		
	Low strength	0.22				
Haustrup	Very limited		Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
	Frost action	0.50	Cutbanks cave	0.10	Droughty	0.14
Rock outcrop	Not rated		Not rated		Not rated	

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
621A:						
Bjorkland	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	Too clayey	1.00		
			Ponding	1.00		
623A:						
Capitola	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	Dense layer	0.50		
			Cutbanks cave	0.10		
624A:						
Ossmer	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		
631A:						
Giese	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		
632A:						
Aftad	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00		
632B:						
Aftad	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00		
632C:						
Aftad	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Slope	0.04
	Slope	0.04	Slope	0.04		
634C:						
Drylanding	Very limited		Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
	Frost action	1.00	Content of large stones	0.39	Droughty	1.00
	Content of large stones	0.39	Cutbanks cave	0.10	Content of large stones	1.00

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
634C:						
Beartree	Very limited		Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	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 large stones	1.00	Ponding	1.00
	Content of large stones	1.00	Ponding	1.00	Droughty	0.95
	Ponding	1.00	Cutbanks cave	0.10		
Rock outcrop	Not rated		Not rated		Not rated	
635C:						
Drylanding	Very limited		Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
	Frost action	1.00	Content of large stones	0.39	Droughty	1.00
	Flooding	0.40	Cutbanks cave	0.10	Content of large stones	1.00
	Content of large stones	0.39				
Beartree	Very limited		Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	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 large stones	1.00	Ponding	1.00
	Content of large stones	1.00	Ponding	1.00	Droughty	0.95
	Ponding	1.00	Cutbanks cave	0.10		
Rock outcrop	Not rated		Not rated		Not rated	
648B:						
Sconsin	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Frost action	0.50	Cutbanks cave	1.00		
			Dense layer	0.50		
669D:						
Fremstadt, stony	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	0.01
Pomroy	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00		
			Dense layer	0.50		
671B:						
Spoonerhill, stony	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.19	Depth to saturated zone	1.00	Droughty	0.42
			Cutbanks cave	1.00	Depth to saturated zone	0.19
			Dense layer	0.50	Content of large stones	0.05

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
671B:						
Spoonerhill---------	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.19	Depth to saturated zone	1.00	Droughty	0.42
			Cutbanks cave	1.00	Depth to saturated zone	0.19
			Dense layer	0.50	Content of large stones	0.01
706A:						
Winterfield---------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
			Flooding	0.80	Droughty	0.10
Totagatic----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Frost action	0.50	Flooding	0.80	Droughty	0.37
715A:						
Mora----------	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	Dense layer	0.50		
			Cutbanks cave	0.10		
717B:						
Milaca----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Dense layer	0.50		
			Cutbanks cave	0.10		
717C:						
Milaca----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Dense layer	0.50	Slope	0.04
	Slope	0.04	Cutbanks cave	0.10		
			Slope	0.04		
720F:						
Haustrup----------	Very limited		Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	0.10	Droughty	0.14
Lundeen----------	Very limited		Very limited		Very limited	
	Frost action	1.00	Depth to hard bedrock	1.00	Slope	1.00
	Slope	1.00	Slope	1.00	Depth to bedrock	0.46
	Depth to hard bedrock	0.46	Cutbanks cave	0.10		
	Low strength	0.22				
Rock outcrop--------	Not rated		Not rated		Not rated	

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
726B:						
Sissabagama---------	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.42
			Depth to saturated zone	0.99		
742B:						
Milaca----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Dense layer	0.50		
			Cutbanks cave	0.10		
742C:						
Milaca----------	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Dense layer	0.50	Slope	0.04
	Slope	0.04	Cutbanks cave	0.10		
			Slope	0.04		
742D:						
Milaca----------	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
	Frost action	0.50	Slope	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Dense layer	0.50		
			Cutbanks cave	0.10		
755A:						
Moppet----------	Very limited		Very limited		Somewhat limited	
	Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
	Frost action	0.50	Depth to saturated zone	0.99		
			Flooding	0.60		
Fordum----------	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	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	0.80		
771A:						
Lenroot----------	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.19	Depth to saturated zone	1.00	Droughty	0.99
			Cutbanks cave	1.00	Depth to saturated zone	0.19
812B:						
Mora----------	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	Dense layer	0.50		
			Cutbanks cave	0.10		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
825A:						
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Cutbanks cave	1.00	Droughty	0.94
					Too sandy	0.50
896A:						
Wurtsmith	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.19	Depth to saturated zone	1.00	Droughty	0.94
			Cutbanks cave	1.00	Too sandy	0.50
					Depth to saturated zone	0.19
980A:						
Soderbeck	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	Content of large stones	0.99
	Content of large stones	0.45	Content of large stones	0.45	Gravel content	0.97
	Flooding	0.40	Depth to hard bedrock	0.42	Droughty	0.61
1070C:						
Fremstadt	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.16	Cutbanks cave	1.00	Slope	0.16
			Slope	0.16	Droughty	0.01
Cress	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.13
			Slope	0.04	Slope	0.04
1070D:						
Fremstadt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	0.01
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.13
1080B:						
Spoonerhill	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.19	Depth to saturated zone	1.00	Droughty	0.42
			Cutbanks cave	1.00	Depth to saturated zone	0.19
			Dense layer	0.50	Content of large stones	0.01
Spoonerhill, stony	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.19	Depth to saturated zone	1.00	Droughty	0.42
			Cutbanks cave	1.00	Depth to saturated zone	0.19
			Dense layer	0.50	Content of large stones	0.05
Cress	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.13

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
2002:						
Udorthents, earthen dams	Not rated		Not rated		Not rated	
2015:						
Pits	Not rated		Not rated		Not rated	
2050:						
Landfill	Not rated		Not rated		Not rated	
3011A:						
Barronett	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
	Low strength	1.00	Ponding	1.00		
	Ponding	1.00				
	Shrink-swell	0.50				
3082E:						
Braham	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00		
Shawano	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.46
3114A:						
Saprists	Not rated		Very limited		Very limited	
			Ponding	1.00	Ponding	1.00
			Depth to saturated zone	1.00	Content of organic matter	1.00
			Content of organic matter	1.00	Depth to saturated zone	1.00
			Cutbanks cave	0.10		
Aquents	Not rated		Very limited		Very limited	
			Ponding	1.00	Ponding	1.00
			Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Cutbanks cave	1.00		
Aquepts	Not rated		Very limited		Very limited	
			Ponding	1.00	Ponding	1.00
			Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Cutbanks cave	1.00		
3125A:						
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Cutbanks cave	1.00	Droughty	0.88
3126A:						
Wurtsmith	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.19	Depth to saturated zone	1.00	Droughty	0.83
			Cutbanks cave	1.00	Depth to saturated zone	0.19

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
3312B:						
Glendenning, very stony	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	0.10	Content of large stones	0.03
Glendenning	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	0.10	Content of large stones	0.01
3336A:						
Fenander	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		
3403A:						
Loxley	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Frost action	1.00	Cutbanks cave	0.10		
Beseman	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Frost action	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Content of organic matter	1.00	Ponding	1.00
	Ponding	1.00	Cutbanks cave	0.10		
Dawson	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Cutbanks cave	1.00	Ponding	1.00
	Frost action	1.00	Ponding	1.00		
	Ponding	1.00	Content of organic matter	1.00		
3429B:						
Lara	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
			Too clayey	1.00	Droughty	0.27
			Cutbanks cave	1.00		
3429C:						
Lara	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Slope	0.04	Too clayey	1.00	Droughty	0.27
			Cutbanks cave	1.00	Slope	0.04
			Slope	0.04		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
3446A:						
Newson	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		
3448B:						
Grettum	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.61
			Depth to saturated zone	0.35		
3448C:						
Grettum	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	0.61
			Depth to saturated zone	0.35	Slope	0.04
			Slope	0.04		
3510B:						
Pomroy	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00		
			Dense layer	0.50		
Fremstadt	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.01
Fremstadt, stony	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.01
3510C:						
Pomroy	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	1.00	Slope	0.16
	Slope	0.16	Dense layer	0.50		
			Slope	0.16		
Fremstadt	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.16	Cutbanks cave	1.00	Slope	0.16
			Slope	0.16	Droughty	0.01
Fremstadt, stony	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.16	Cutbanks cave	1.00	Slope	0.16
			Slope	0.16	Droughty	0.01
3511A:						
Bushville	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Cutbanks cave	1.00		
			Dense layer	0.50		
3516A:						
Slimlake	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.21
			Depth to saturated zone	0.99		

Table 17b.--Building Site Development--Continued

Map symbol and soil name	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
3625A:						
Lino	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Cutbanks cave	1.00	Droughty	0.19
3626A:						
Crex	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.19	Depth to saturated zone	1.00	Droughty	0.23
			Cutbanks cave	1.00	Depth to saturated zone	0.19
3629B:						
Perida	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.44
			Too clayey	1.00		
			Depth to saturated zone	0.82		
3636B:						
Plainbo	Not limited		Very limited		Very limited	
			Cutbanks cave	1.00	Droughty	1.00
			Depth to soft bedrock	0.46	Too sandy	0.50
					Depth to bedrock	0.46
3636C:						
Plainbo	Somewhat limited		Very limited		Very limited	
	Slope	0.04	Cutbanks cave	1.00	Droughty	1.00
			Depth to soft bedrock	0.46	Too sandy	0.50
					Depth to bedrock	0.46
			Slope	0.04	Slope	0.04
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water	Not rated		Not rated		Not rated	

Table 18a.--Sanitary Facilities

(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 soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:				
Totagatic	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Ponding	1.00
	Seepage	1.00	Content of organic matter	1.00
Bowstring	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Ponding	1.00
	Seepage	1.00	Content of organic matter	1.00
Ausable	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Ponding	1.00
	Seepage	1.00	Content of organic matter	1.00
12A:				
Makwa	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
	Content of large stones	0.11	Content of organic matter	1.00
22A:				
Comstock	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
27A:				
Scott Lake----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
	Restricted permeability	0.46		
28B:				
Haugen, very stony--	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Restricted permeability	1.00	Seepage	0.53
			Slope	0.32
Haugen----------	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Restricted permeability	1.00	Seepage	0.53
			Slope	0.32
Rosholt, very stony	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
			Slope	0.32
	Seepage	1.00		
	Restricted permeability	0.46		
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
			Slope	0.32
	Seepage	1.00		
	Restricted permeability	0.46		
28C:				
Haugen, very stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
			Depth to saturated zone	0.75
	Restricted permeability	1.00	Seepage	0.53
	Slope	0.04		
Haugen----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
			Depth to saturated zone	0.75
	Restricted permeability	1.00	Seepage	0.53
	Slope	0.04		
Rosholt, very stony	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
			Slope	1.00
	Seepage	1.00		
	Restricted permeability	0.46		
	Slope	0.04		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
28C:				
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Restricted permeability	0.46		
	Slope	0.04		
38A:				
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00		
	Restricted permeability	0.46		
38B:				
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
	Restricted permeability	0.46		
38C:				
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Restricted permeability	0.46		
	Slope	0.04		
38D:				
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
	Restricted permeability	0.46		
42D:				
Amery	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Slope	1.00	Seepage	0.53
43B:				
Antigo	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
	Restricted permeability	0.46		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
43C:				
Antigo	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Restricted permeability	0.46		
	Slope	0.37		
63A:				
Crystal Lake	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
63B:				
Crystal Lake	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
			Slope	0.32
63C:				
Crystal Lake	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.99
	Slope	0.04	Seepage	0.53
64A:				
Totagatic	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Ponding	1.00
	Seepage	1.00	Content of organic matter	1.00
Winterfield	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
69C:				
Keweenaw	Very limited		Very limited	
	Seepage	1.00	Seepage	1.00
	Slope	0.16	Slope	1.00
Sayner	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.16		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
69C:				
Vilas	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.16		
69E:				
Keweenaw	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
Sayner	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
	Seepage	1.00		
Vilas	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
	Seepage	1.00		
82B:				
Cutaway	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.72	Slope	0.18
Branstad	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.72	Seepage	0.53
			Slope	0.18
82C:				
Cutaway	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.72	Slope	1.00
	Slope	0.04		
Branstad	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.72	Slope	1.00
	Slope	0.04	Seepage	0.53

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
83A:				
Smestad	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Filtering capacity	1.00		
85B:				
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Slope	0.32
85C:				
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04		
86A:				
Indus	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00		
Alango	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		
89A:				
Wildwood	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
96B:				
Karlsborg	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Filtering capacity	1.00	Slope	0.32
	Seepage	1.00		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
96C:				
Karlsborg	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.99
	Seepage	1.00		
	Slope	0.04		
96D:				
Karlsborg	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.99
	Seepage	1.00		
	Slope	1.00		
100B:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08
100C:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
100D:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
120B:				
Kost	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08
127D:				
Amery	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Slope	1.00	Seepage	0.53
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
	Restricted permeability	0.46		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
127E:				
Amery	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Restricted permeability	1.00	Seepage	0.53
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
			Seepage	1.00
	Slope	1.00		
	Seepage	1.00		
	Restricted permeability	0.46		
151A:				
Bluffton	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Restricted permeability	0.46	Seepage	0.53
152A:				
Alstad	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.72	Seepage	0.53
154E:				
Cushing	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Restricted permeability	1.00	Seepage	0.53
156B:				
Magnor, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
Magnor	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
157B:				
Freeon, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
			Slope	0.32
Freeon	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
			Slope	0.32

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
157C:				
Freeon, very stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Slope	1.00
	Slope	0.04	Seepage	0.53
Freeon----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Slope	1.00
	Slope	0.04	Seepage	0.53
160A:				
Oesterle----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
165B:				
Elderon----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Content of large stones	0.34
	Content of large stones	0.14	Slope	0.32
185B:				
Tradelake----------	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Filtering capacity	1.00	Slope	0.32
	Seepage	1.00		
Taylor----------	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Slope	0.32
185C:				
Tradelake----------	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.99
	Seepage	1.00		
	Slope	0.04		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
185C:				
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.04		
185D:				
Tradelake	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.75
	Seepage	1.00		
	Slope	1.00		
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	1.00		
185E:				
Tradelake	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.75
	Slope	1.00		
	Seepage	1.00		
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	1.00		
189A:				
Siren	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
193A:				
Minocqua	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
	Restricted permeability	0.46		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
337A:				
Plover	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
368B:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
368C:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
368D:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
368E:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
	Seepage	1.00		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
	Seepage	1.00		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
380B:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
	Restricted permeability	0.46		
380C:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Restricted permeability	0.46		
	Slope	0.04		
380D:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
	Restricted permeability	0.46		
383B:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08
383C:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
383D:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
392C:				
Rockmarsh	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of large stones	0.88	Seepage	1.00
	Slope	0.37	Slope	1.00
			Content of large stones	1.00
			Content of organic matter	1.00
Dairyland	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Slope	1.00
	Content of large stones	0.60	Content of large stones	1.00
	Slope	0.37	Depth to saturated zone	0.75
Makwa	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Content of large stones	0.11	Slope	1.00
			Content of organic matter	1.00
			Content of large stones	0.83
396B:				
Friendship	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Depth to saturated zone	0.17
	Depth to saturated zone	0.84		
Wurtsmith	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
397A:				
Perchlake	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
399B:				
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08
399C:				
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
399D:				
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
406A:				
Loxley	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Filtering capacity	1.00	Seepage	1.00
	Subsidence	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00		
407A:				
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Seepage	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
			Ponding	1.00
Markey	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
	Restricted permeability	0.46		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
410A:				
Seelyeville---------	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Seepage	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
			Ponding	1.00
Cathro----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Restricted permeability	0.72	Ponding	1.00
			Content of organic matter	1.00
419A:				
Seelyeville---------	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Seepage	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
			Ponding	1.00
Cathro----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Restricted permeability	0.72	Ponding	1.00
			Content of organic matter	1.00
Markey----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
421A:				
Dora----------	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
			Content of organic matter	1.00
Markey----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
	Restricted permeability	0.46		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
421A:				
Seelyeville---------	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Seepage	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
			Ponding	1.00
422A:				
Seelyeville---------	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Seepage	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
			Ponding	1.00
Cathro----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Restricted permeability	0.72	Ponding	1.00
			Content of organic matter	1.00
Rondeau----------	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
			Content of organic matter	1.00
426B:				
Emmert----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
Mahtomedi----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
Menahga----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
426C:				
Emmert----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
426C:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
426D:				
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
430A:				
Freya	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Filtering capacity	1.00		
439B:				
Graycalm	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08
439C:				
Graycalm	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
439C:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
439D:				
Graycalm	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
442C:				
Haugen	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.75
			Seepage	0.53
Greenwood	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
443D:				
Amery	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Restricted permeability	1.00	Seepage	0.53
Greenwood	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
459A:				
Loxley	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Filtering capacity	1.00	Seepage	1.00
	Subsidence	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
459A:				
Daisybay	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
Dawson	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Ponding	1.00
	Seepage	1.00	Content of organic matter	1.00
	Ponding	1.00		
461A:				
Bowstring	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Ponding	1.00
	Seepage	1.00	Content of organic matter	1.00
465A:				
Newson	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
Meehan	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
469E:				
Bigisland	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Content of large stones	0.61	Seepage	1.00
			Content of large stones	1.00
Milaca	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Slope	1.00	Depth to saturated zone	0.75
	Restricted permeability	0.46	Seepage	0.53

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
471B:				
Dairyland	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Content of large stones	1.00
	Content of large stones	0.60	Depth to saturated zone	0.75
			Slope	0.08
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08
471C:				
Dairyland	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Slope	1.00
	Content of large stones	0.60	Content of large stones	1.00
	Slope	0.37	Depth to saturated zone	0.75
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.37		
472A:				
Rockmarsh	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of large stones	0.88	Seepage	1.00
			Content of large stones	1.00
			Content of organic matter	1.00
Clemens	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Content of large stones	0.91
	Restricted permeability	0.46		
473A:				
Dairyland	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Content of large stones	1.00
	Content of large stones	0.60	Depth to saturated zone	0.75

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
473A:				
Skog	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Flooding	0.40
	Flooding	0.40		
484A:				
Greenwood	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
Beseman	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	1.00
	Subsidence	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
485C:				
Lupton	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Seepage	1.00	Depth to saturated zone	1.00
			Slope	1.00
			Seepage	1.00
Tawas	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Slope	1.00
	Ponding	1.00	Ponding	1.00
			Content of organic matter	1.00
495B:				
Karlsborg	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Filtering capacity	1.00	Slope	0.32
	Seepage	1.00		
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32
	Depth to saturated zone	0.84	Depth to saturated zone	0.17

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
495B:				
Perida	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Slope	0.32
	Filtering capacity	1.00		
	Seepage	1.00		
495C:				
Karlsborg	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.99
	Seepage	1.00		
	Slope	0.04		
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Depth to saturated zone	0.84	Depth to saturated zone	0.17
	Slope	0.04		
Perida	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Filtering capacity	1.00		
	Seepage	1.00		
	Slope	0.04		
495D:				
Karlsborg	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.99
	Seepage	1.00		
	Slope	1.00		
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00	Depth to saturated zone	0.17
	Depth to saturated zone	0.84		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
495D:				
Perida	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00		
	Seepage	1.00		
	Slope	1.00		
496B:				
Karlsborg	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Filtering capacity	1.00	Slope	0.32
	Seepage	1.00		
496C:				
Karlsborg	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.99
	Seepage	1.00		
	Slope	0.04		
496D:				
Karlsborg	Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.99
	Seepage	1.00		
	Slope	1.00		
497A:				
Meenon	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Filtering capacity	1.00		
	Seepage	1.00		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
521A:				
Dody	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Filtering capacity	1.00	Ponding	1.00
	Seepage	1.00	Content of organic matter	1.00
	Ponding	1.00		
523A:				
Nokasippi	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Restricted permeability	0.46	Content of organic matter	1.00
529B:				
Perida	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00		
	Filtering capacity	1.00		
	Seepage	1.00		
531A:				
Stengel	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
542B:				
Haugen, very stony	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Restricted permeability	1.00	Seepage	0.53
			Slope	0.32
Haugen	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Restricted permeability	1.00	Seepage	0.53
			Slope	0.32
542C:				
Haugen, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.75
	Slope	0.04	Seepage	0.53

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
542C:				
Haugen	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.75
	Slope	0.04	Seepage	0.53
544F:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
	Seepage	1.00		
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
	Seepage	1.00		
553B:				
Branstad	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.72	Seepage	0.53
			Slope	0.08
553C:				
Branstad	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.72	Slope	1.00
	Slope	0.04	Seepage	0.53
553D:				
Branstad	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Slope	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.72	Seepage	0.53
555A:				
Fordum	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00		
557B:				
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
557C:				
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
557D:				
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
586A:				
Chelmo	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Filtering capacity	1.00	Ponding	1.00
	Seepage	1.00		
	Ponding	1.00		
600A:				
Haplosaprists	Not rated		Not rated	
Psammaquents	Not rated		Not rated	
615B:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08
615C:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
615D:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
620C:				
Lundeen	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
			Slope	1.00
			Seepage	0.53

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
620C:				
Haustrup	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
			Slope	1.00
			Seepage	0.53
Rock outcrop	Not rated		Not rated	
621A:				
Bjorkland	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Filtering capacity	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
623A:				
Capitola	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
			Content of organic matter	1.00
			Seepage	0.53
624A:				
Ossmer	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
	Restricted permeability	0.46		
631A:				
Giese	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
			Seepage	0.53
632A:				
Aftad	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
632B:				
Aftad	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
			Slope	0.32

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
632C:				
Aftad	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.99
	Slope	0.04	Seepage	0.53
634C:				
Drylanding	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Content of large stones	0.39	Slope	1.00
			Content of large stones	0.49
Beartree	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of large stones	1.00	Content of large stones	1.00
	Ponding	1.00	Ponding	1.00
			Content of organic matter	1.00
Rock outcrop	Not rated		Not rated	
635C:				
Drylanding	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Flooding	0.40	Slope	1.00
	Content of large stones	0.39	Content of large stones	0.49
			Flooding	0.40
Beartree	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of large stones	1.00	Content of large stones	1.00
	Ponding	1.00	Ponding	1.00
	Flooding	0.40	Content of organic matter	1.00
Rock outcrop	Not rated		Not rated	
648B:				
Sconsin	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Seepage	1.00	Depth to saturated zone	0.99
	Restricted permeability	0.46	Slope	0.32

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
669D:				
Fremstadt, stony----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
Pomroy----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Filtering capacity	1.00	Seepage	1.00
	Slope	1.00	Depth to saturated zone	0.75
	Restricted permeability	0.46		
671B:				
Spoonerhill, stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.75
			Slope	0.32
Spoonerhill---------	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.75
			Slope	0.32
706A:				
Winterfield---------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
Totagatic----------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00		
715A:				
Mora----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53
717B:				
Milaca----------	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Restricted permeability	0.46	Slope	0.68
			Seepage	0.53

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
717C:				
Milaca	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	0.46	Depth to saturated zone	0.75
	Slope	0.04	Seepage	0.53
720F:				
Haustrup	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Slope	1.00	Slope	1.00
			Seepage	0.53
Lundeen	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Slope	1.00	Slope	1.00
			Seepage	0.53
Rock outcrop	Not rated		Not rated	
726B:				
Sissabagama	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Slope	0.08
742B:				
Milaca	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Restricted permeability	0.46	Seepage	0.53
			Slope	0.32
742C:				
Milaca	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	0.46	Depth to saturated zone	0.75
	Slope	0.04	Seepage	0.53
742D:				
Milaca	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Slope	1.00	Depth to saturated zone	0.75
	Restricted permeability	0.46	Seepage	0.53

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
755A:				
Moppet	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
	Restricted permeability	0.46		
Fordum	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00		
771A:				
Lenroot	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
812B:				
Mora	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53
825A:				
Meehan	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
896A:				
Wurtsmith	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
980A:				
Soderbeck	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Content of large stones	0.92
	Depth to bedrock	0.78	Depth to hard bedrock	0.42
	Restricted permeability	0.46	Flooding	0.40

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
1070C:				
Fremstadt	Very limited		Very limited	
	Seepage	1.00	Seepage	1.00
	Slope	0.16	Slope	1.00
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
1070D:				
Fremstadt	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
1080B:				
Spoonerhill	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.75
			Slope	0.32
Spoonerhill, stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.75
			Slope	0.32
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.08
2002:				
Udorthents, earthen dams	Not rated		Not rated	
2015:				
Pits	Not rated		Not rated	
2050:				
Landfill	Not rated		Not rated	
3011A:				
Barronett	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Ponding	1.00
	Ponding	1.00	Seepage	0.53

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3082E:				
Braham	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
	Restricted permeability	0.72		
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00
	Slope	1.00		
3114A:				
Saprists	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Seepage	1.00	Depth to saturated zone	1.00
			Seepage	1.00
Aquents	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Content of organic matter	1.00
Aquepts	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Content of organic matter	1.00
	Restricted permeability	0.46		
3125A:				
Meehan	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
3126A:				
Wurtsmith	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3312B:				
Glendenning, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
Glendenning	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53
3336A:				
Fenander	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Ponding	1.00
	Ponding	1.00	Seepage	0.53
3403A:				
Loxley	Very limited		Very limited	
	Depth to saturated zone	1.00	Content of organic matter	1.00
	Filtering capacity	1.00	Seepage	1.00
	Subsidence	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00		
Beseman	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	1.00
	Subsidence	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
Dawson	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Ponding	1.00
	Seepage	1.00	Content of organic matter	1.00
	Ponding	1.00		
3429B:				
Lara	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Slope	0.08

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3429C:				
Lara	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	0.04	Slope	1.00
3446A:				
Newson	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Ponding	1.00
	Ponding	1.00	Content of organic matter	1.00
3448B:				
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Depth to saturated zone	0.17
	Depth to saturated zone	0.84	Slope	0.08
3448C:				
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Depth to saturated zone	0.84	Depth to saturated zone	0.17
	Slope	0.04		
3510B:				
Pomroy	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.75
	Restricted permeability	0.46	Slope	0.32
Fremstadt	Very limited		Very limited	
	Seepage	1.00	Seepage	1.00
			Slope	0.32
Fremstadt, stony	Very limited		Very limited	
	Seepage	1.00	Seepage	1.00
			Slope	0.32
3510C:				
Pomroy	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Slope	1.00
	Restricted permeability	0.46	Depth to saturated zone	0.75
	Slope	0.16		

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3510C:				
Fremstadt	Very limited		Very limited	
	Seepage	1.00	Seepage	1.00
	Slope	0.16	Slope	1.00
Fremstadt, stony	Very limited		Very limited	
	Seepage	1.00	Seepage	1.00
	Slope	0.16	Slope	1.00
3511A:				
Bushville	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46		
3516A:				
Slimlake	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
3625A:				
Lino	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
3626A:				
Crex	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Seepage	1.00		
3629B:				
Perida	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00		
	Filtering capacity	1.00		
	Seepage	1.00		
3636B:				
Plainbo	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	0.32

Table 18a.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3636C:				
Plainbo	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Filtering capacity	1.00	Seepage	1.00
	Seepage	1.00	Slope	1.00
	Slope	0.04		
M-W:				
Miscellaneous water	Not rated		Not rated	
W:				
Water	Not rated		Not rated	

Table 18b.--Sanitary Facilities

(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 soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:						
Totagatic	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00				
Bowstring	Very limited		Very limited		Very limited	
	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	Seepage	1.00	Ponding	1.00
	Seepage	1.00	Piping	1.00	Seepage	0.16
	Ponding	1.00				
Ausable	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00				
12A:						
Makwa	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Seepage	1.00	Gravel content	0.71
	Content of large stones	0.07	Ponding	1.00	Seepage	0.16
					Content of large stones	0.07
22A:						
Comstock	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
27A:						
Scott Lake	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00			Depth to saturated zone	0.47
					Gravel content	0.09

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
28B:						
Haugen, very stony--	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
					Gravel content	0.01
Haugen----------	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
					Gravel content	0.01
Rosholt, very stony	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.06
Rosholt----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.02
28C:						
Haugen, very stony--	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
					Gravel content	0.01
Haugen----------	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
					Gravel content	0.01
Rosholt, very stony	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Gravel content	0.06
					Slope	0.04
Rosholt----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.02
38A:						
Rosholt----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.02
38B:						
Rosholt----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.02

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
38C:						
Rosholt----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.02
38D:						
Rosholt----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.02
42D:						
Amery----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.02
43B:						
Antigo----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
43C:						
Antigo----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.37	Seepage	1.00
	Slope	0.37			Slope	0.37
63A:						
Crystal Lake--------	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
63B:						
Crystal Lake--------	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
63C:						
Crystal Lake--------	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
64A:						
Totagatic----------	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00				
Winterfield---------	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00				

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
69C:						
Keweenaw----------	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Seepage	1.00	Too sandy	0.50
	Too sandy	0.50	Slope	0.16	Seepage	0.22
	Slope	0.16			Slope	0.16
Sayner----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.16	Seepage	1.00
	Slope	0.16			Slope	0.16
					Gravel content	0.03
Vilas----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.16	Seepage	1.00
	Slope	0.16			Slope	0.16
69E:						
Keweenaw----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	0.50
	Too sandy	0.50			Seepage	0.22
Sayner----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.03
Vilas----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
82B:						
Cutaway----------	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
			Seepage	1.00		
Branstad----------	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
82C:						
Cutaway----------	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
	Slope	0.04	Seepage	1.00	Slope	0.04
			Slope	0.04		
Branstad----------	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
83A:						
Smestad----------	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	0.50	Seepage	1.00	Too sandy	0.50

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
85B:						
Taylor	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 clayey	1.00			Too clayey	1.00
					Hard to compact	1.00
85C:						
Taylor	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 clayey	1.00	Slope	0.04	Too clayey	1.00
	Slope	0.04			Hard to compact	1.00
					Slope	0.04
86A:						
Indus	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 clayey	1.00	Ponding	1.00	Too clayey	1.00
	Ponding	1.00			Hard to compact	1.00
					Ponding	1.00
Alango	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 clayey	1.00			Too clayey	1.00
					Hard to compact	1.00
89A:						
Wildwood	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 clayey	1.00	Ponding	1.00	Too clayey	1.00
	Ponding	1.00			Hard to compact	1.00
					Ponding	1.00
96B:						
Karlsborg	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Too sandy	1.00
	Seepage	1.00	Depth to saturated zone	0.99	Seepage	1.00
	Too sandy	1.00			Too clayey	1.00
					Depth to saturated zone	0.99
96C:						
Karlsborg	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Too sandy	1.00
	Seepage	1.00	Depth to saturated zone	0.99	Seepage	1.00
	Too sandy	1.00	Slope	0.04	Too clayey	1.00
	Slope	0.04			Depth to saturated zone	0.99
					Slope	0.04

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
96D:						
Karlsborg	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Too sandy	1.00
	Seepage	1.00	Slope	1.00	Seepage	1.00
	Too sandy	1.00	Depth to saturated zone	0.99	Too clayey	1.00
	Slope	1.00			Slope	1.00
					Depth to saturated zone	0.99
100B:						
Menahga	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
100C:						
Menahga	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
100D:						
Menahga	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
120B:						
Kost	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
127D:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.02
Rosholt	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.06
127E:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.02
Rosholt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.06
151A:						
Bluffton	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 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
152A:						
Alstad	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
154E:						
Cushing	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
156B:						
Magnor, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Magnor	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
157B:						
Freeon, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Freeon	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
157C:						
Freeon, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	0.04	Slope	0.04	Slope	0.04
Freeon	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	0.04	Slope	0.04	Slope	0.04
160A:						
Oesterle	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.04
165B:						
Elderon	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50			Too sandy	0.50
	Content of large stones	0.23			Gravel content	0.28
					Content of large stones	0.23

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
185B:						
Tradelake----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.99	Seepage	1.00
	Seepage	1.00			Too clayey	1.00
	Too clayey	1.00			Hard to compact	1.00
					Depth to saturated zone	0.99
Taylor----------	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 clayey	1.00			Too clayey	1.00
					Hard to compact	1.00
185C:						
Tradelake----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.99	Seepage	1.00
	Seepage	1.00	Slope	0.04	Too clayey	1.00
	Too clayey	1.00			Hard to compact	1.00
	Slope	0.04			Depth to saturated zone	0.99
					Slope	0.04
Taylor----------	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 clayey	1.00	Slope	0.04	Too clayey	1.00
	Slope	0.04			Hard to compact	1.00
					Slope	0.04
185D:						
Tradelake----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Slope	1.00	Seepage	1.00
	Too clayey	1.00	Depth to saturated zone	0.75	Too clayey	1.00
	Slope	1.00			Hard to compact	1.00
	Depth to saturated zone	0.99			Slope	1.00
					Depth to saturated zone	0.86
Taylor----------	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 clayey	1.00	Slope	1.00	Too clayey	1.00
	Slope	1.00			Hard to compact	1.00
					Slope	1.00
185E:						
Tradelake----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Depth to saturated zone	0.75	Seepage	1.00
	Too clayey	1.00			Too clayey	1.00
	Depth to saturated zone	0.99			Hard to compact	1.00
					Depth to saturated zone	0.86
Taylor----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00	Slope	1.00
	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too clayey	1.00			Too clayey	1.00
					Hard to compact	1.00

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
189A:						
Siren	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 clayey	1.00			Too clayey	1.00
					Hard to compact	1.00
193A:						
Minocqua	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Ponding	1.00	Seepage	1.00
	Ponding	1.00			Ponding	1.00
					Gravel content	0.01
337A:						
Plover	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	1.00			Too sandy	1.00
368B:						
Mahtomedi	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.01
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.02
368C:						
Mahtomedi	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.01
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.02
368D:						
Mahtomedi	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.01
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.02

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
368E:						
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.01
Cress	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.02
380B:						
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.02
Rosholt	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.02
380C:						
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.02
Rosholt	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.02
380D:						
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.02
Rosholt	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.02
383B:						
Mahtomedi	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.01

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
383C:						
Mahtomedi----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.01
383D:						
Mahtomedi----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.01
392C:						
Rockmarsh----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of large stones	0.88	Seepage	1.00	Content of large stones	0.88
	Slope	0.37	Slope	0.37	Seepage	0.52
					Slope	0.37
					Gravel content	0.17
Dairyland----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00	Seepage	1.00
	Content of large stones	0.59	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Too sandy	0.50	Slope	0.37	Gravel content	0.66
	Slope	0.37			Content of large stones	0.59
					Too sandy	0.50
Makwa----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of large stones	0.07	Seepage	1.00	Gravel content	0.71
					Seepage	0.16
					Content of large stones	0.07
396B:						
Friendship----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00				
Wurtsmith----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00			Depth to saturated zone	0.86
Grayling----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
397A:						
Perchlake----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50			Too sandy	0.50
399B:						
Grayling----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
399C:						
Grayling----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
399D:						
Grayling----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
406A:						
Loxley----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16
407A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16
Markey----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Ponding	1.00	Seepage	1.00
	Ponding	1.00			Ponding	1.00
410A:						
Seelyeville---------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
410A:						
Cathro	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	Seepage	1.00	Ponding	1.00
			Ponding	1.00		
419A:						
Seelyeville	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16
Cathro	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	Seepage	1.00	Ponding	1.00
			Ponding	1.00		
Markey	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Ponding	1.00	Seepage	1.00
	Ponding	1.00			Ponding	1.00
421A:						
Dora	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
					Seepage	0.16
Markey	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Ponding	1.00	Seepage	1.00
	Ponding	1.00			Ponding	1.00
Seelyeville	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16
422A:						
Seelyeville	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
422A:						
Cathro	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	Seepage	1.00	Ponding	1.00
			Ponding	1.00		
Rondeau	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
					Seepage	0.16
426B:						
Emmert	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	1.00
Mahtomedi	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.01
Menahga	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
426C:						
Emmert	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Gravel content	1.00
					Slope	0.04
Mahtomedi	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.01
Menahga	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
426D:						
Emmert	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Gravel content	1.00
					Slope	1.00
Mahtomedi	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.01

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
426D:						
Menahga----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
430A:						
Freya----------	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	1.00	Seepage	1.00	Too sandy	1.00
					Seepage	1.00
439B:						
Graycalm----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
Menahga----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
439C:						
Graycalm----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
Menahga----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
439D:						
Graycalm----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
Menahga----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
442C:						
Haugen----------	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
					Gravel content	0.01
Greenwood----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.22

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
443D:						
Amery	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.02
Greenwood	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.22
459A:						
Loxley	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16
Daisybay	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 clayey	1.00	Seepage	1.00	Too clayey	1.00
	Ponding	1.00	Ponding	1.00	Hard to compact	1.00
					Ponding	1.00
Dawson	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Content of organic matter	1.00
	Content of organic matter	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16
461A:						
Bowstring	Very limited		Very limited		Very limited	
	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	Seepage	1.00	Ponding	1.00
	Seepage	1.00	Ponding	1.00	Seepage	0.16
	Ponding	1.00				
465A:						
Newson	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Ponding	1.00	Seepage	1.00
	Ponding	1.00			Ponding	1.00
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
469E:						
Bigisland	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too sandy	1.00	Seepage	1.00	Too sandy	1.00
	Content of large stones	0.61			Seepage	1.00
					Gravel content	0.66
					Content of large stones	0.61
Milaca	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
471B:						
Dairyland	Very limited		Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00	Seepage	1.00
	Content of large stones	0.59	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Too sandy	0.50			Gravel content	0.66
					Content of large stones	0.59
					Too sandy	0.50
Emmert	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	1.00
471C:						
Dairyland	Very limited		Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00	Seepage	1.00
	Content of large stones	0.59	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Too sandy	0.50	Slope	0.37	Gravel content	0.66
	Slope	0.37			Content of large stones	0.59
					Too sandy	0.50
Emmert	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.37	Seepage	1.00
	Slope	0.37			Gravel content	1.00
					Slope	0.37
472A:						
Rockmarsh	Very limited		Very limited		Very limited	
	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 large stones	0.88
	Content of large stones	0.88	Seepage	1.00	Seepage	0.52
					Gravel content	0.17

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
472A:						
Clemens	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
	Seepage	1.00			Gravel content	0.75
	Too sandy	0.50			Too sandy	0.50
	Content of large stones	0.27			Content of large stones	0.27
473A:						
Dairyland	Very limited		Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00	Seepage	1.00
	Content of large stones	0.59	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Too sandy	0.50			Gravel content	0.66
					Content of large stones	0.59
					Too sandy	0.50
Skog	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00	Flooding	0.40	Gravel content	1.00
	Flooding	0.40			Depth to saturated zone	0.47
484A:						
Greenwood	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.22
Beseman	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
					Seepage	0.22
485C:						
Lupton	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00			Seepage	0.16
Tawas	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Ponding	1.00	Seepage	1.00
	Ponding	1.00			Ponding	1.00

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
495B:						
Karlsborg	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Too sandy	1.00
	Seepage	1.00	Depth to saturated zone	0.99	Seepage	1.00
	Too sandy	1.00			Too clayey	1.00
					Depth to saturated zone	0.99
Grettum	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00				
Perida	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
	Depth to saturated zone	0.09				
495C:						
Karlsborg	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Too sandy	1.00
	Seepage	1.00	Depth to saturated zone	0.99	Seepage	1.00
	Too sandy	1.00	Slope	0.04	Too clayey	1.00
	Slope	0.04			Depth to saturated zone	0.99
					Slope	0.04
Grettum	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00	Slope	0.04	Slope	0.04
	Slope	0.04				
Perida	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Depth to saturated zone	0.09			Slope	0.04
	Slope	0.04				
495D:						
Karlsborg	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Too sandy	1.00
	Seepage	1.00	Slope	1.00	Seepage	1.00
	Too sandy	1.00	Depth to saturated zone	0.99	Too clayey	1.00
	Slope	1.00			Slope	1.00
					Depth to saturated zone	0.99
Grettum	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Slope	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00				

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
495D:						
Perida	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
	Depth to saturated zone	0.09				
496B:						
Karlsborg	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Too sandy	1.00
			Depth to saturated zone	0.99	Seepage	1.00
	Seepage	1.00			Too clayey	1.00
	Too sandy	1.00			Depth to saturated zone	0.99
496C:						
Karlsborg	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Too sandy	1.00
			Depth to saturated zone	0.99	Seepage	1.00
	Seepage	1.00			Too clayey	1.00
	Too sandy	1.00	Slope	0.04	Depth to saturated zone	0.99
	Slope	0.04			Slope	0.04
496D:						
Karlsborg	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Too sandy	1.00
			Slope	1.00	Seepage	1.00
	Seepage	1.00	Depth to saturated zone	0.99	Too clayey	1.00
	Too sandy	1.00			Slope	1.00
	Slope	1.00			Depth to saturated zone	0.99
497A:						
Meenon	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
521A:						
Dody	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too clayey	1.00
	Too clayey	1.00	Ponding	1.00	Hard to compact	1.00
	Ponding	1.00			Ponding	1.00
523A:						
Nokasippi	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	Seepage	1.00	Seepage	1.00
	Too sandy	0.50	Ponding	1.00	Ponding	1.00
					Too sandy	0.50

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
529B:						
Perida	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
	Depth to saturated zone	0.09				
531A:						
Stengel	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50			Too sandy	0.50
542B:						
Haugen, very stony	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
					Gravel content	0.01
Haugen	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
					Gravel content	0.01
542C:						
Haugen, very stony	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
					Gravel content	0.01
Haugen	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
					Gravel content	0.01
544F:						
Menahga	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
Mahtomedi	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.01
553B:						
Branstad	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
553C:						
Branstad	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
553D:						
Branstad	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
	Slope	1.00	Slope	1.00	Depth to saturated zone	0.86
555A:						
Fordum	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00				
557B:						
Shawano	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
557C:						
Shawano	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
557D:						
Shawano	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
586A:						
Chelmo	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Ponding	1.00	Seepage	1.00
	Ponding	1.00			Ponding	1.00
600A:						
Haplosaprists	Not rated		Very limited		Not rated	
			Ponding	1.00		
			Depth to saturated zone	1.00		
Psammaquents	Not rated		Very limited		Not rated	
			Ponding	1.00		
			Depth to saturated zone	1.00		
615B:						
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.02

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
615C:						
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.02
615D:						
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.02
620C:						
Lundeen	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Haustrup	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Rock outcrop	Not rated		Not rated		Not rated	
621A:						
Bjorkland	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 clayey	1.00	Seepage	1.00	Too clayey	1.00
	Ponding	1.00	Ponding	1.00	Hard to compact	1.00
					Ponding	1.00
623A:						
Capitola	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
624A:						
Ossmer	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
631A:						
Giese	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
632A:						
Aftad	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
632B:						
Aftad	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
632C:						
Aftad	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
634C:						
Drylanding	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Content of large stones	0.39			Content of large stones	0.39
Beartree	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
	Content of large stones	1.00	Ponding	1.00	Content of large stones	1.00
	Ponding	1.00			Ponding	1.00
Rock outcrop	Not rated		Not rated		Not rated	
635C:						
Drylanding	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Flooding	0.40	Flooding	0.40	Content of large stones	0.39
	Content of large stones	0.39				
Beartree	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
	Content of large stones	1.00	Ponding	1.00	Content of large stones	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
	Flooding	0.40				
Rock outcrop	Not rated		Not rated		Not rated	
648B:						
Sconsin	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Depth to saturated zone	0.99
	Seepage	1.00	Depth to saturated zone	0.99		
669D:						
Fremstadt, stony	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50			Too sandy	0.50
Pomroy	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.99	Seepage	1.00	Seepage	1.00
	Too sandy	0.50	Depth to saturated zone	0.75	Depth to saturated zone	0.86
					Too sandy	0.50

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
671B:						
Spoonerhill, stony--	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Seepage	1.00	Depth to saturated zone	0.86
	Too sandy	0.50	Depth to saturated zone	0.75	Too sandy	0.50
Spoonerhill---------	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Seepage	1.00	Depth to saturated zone	0.86
	Too sandy	0.50	Depth to saturated zone	0.75	Too sandy	0.50
706A:						
Winterfield---------	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00				
Totagatic----------	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00				
715A:						
Mora----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
717B:						
Milaca----------	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
717C:						
Milaca----------	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
720F:						
Haustrup----------	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Slope	1.00	Slope	1.00	Slope	1.00
Lundeen----------	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Slope	1.00	Slope	1.00	Slope	1.00
Rock outcrop--------	Not rated		Not rated		Not rated	
726B:						
Sissabagama---------	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.47
			Seepage	1.00		

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
742B:						
Milaca	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
742C:						
Milaca	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
742D:						
Milaca	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
755A:						
Moppet	Very limited		Very limited		Somewhat limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.47
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Seepage	1.00	Seepage	1.00		
Fordum	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00				
771A:						
Lenroot	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00			Depth to saturated zone	0.86
					Gravel content	0.05
812B:						
Mora	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
825A:						
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
896A:						
Wurtsmith	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00			Depth to saturated zone	0.86

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
980A:						
Soderbeck	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to bedrock	1.00	Seepage	1.00	Too sandy	1.00
	Seepage	1.00	Depth to bedrock	0.42	Seepage	1.00
	Too sandy	1.00	Flooding	0.40	Gravel content	0.43
	Flooding	0.40			Depth to bedrock	0.42
1070C:						
Fremstadt	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50	Slope	0.16	Too sandy	0.50
	Slope	0.16			Slope	0.16
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
					Gravel content	0.02
1070D:						
Fremstadt	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50			Too sandy	0.50
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
					Gravel content	0.02
1080B:						
Spoonerhill	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Seepage	1.00	Depth to saturated zone	0.86
			Depth to saturated zone	0.75		
	Too sandy	0.50			Too sandy	0.50
Spoonerhill, stony	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Seepage	1.00	Depth to saturated zone	0.86
			Depth to saturated zone	0.75		
	Too sandy	0.50			Too sandy	0.50
Cress	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
					Gravel content	0.02
2002:						
Udorthents, earthen dams	Not rated		Not rated		Not rated	
2015:						
Pits	Not rated		Not rated		Not rated	
2050:						
Landfill	Not rated		Not rated		Not rated	

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3011A:						
Barronett	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
3082E:						
Braham	Very limited		Very limited		Very limited	
	Slope	1.00	Seepage	1.00	Slope	1.00
			Slope	1.00		
Shawano	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	1.00	Seepage	1.00
	Slope	1.00			Slope	1.00
3114A:						
Saprists	Not rated		Very limited		Not rated	
			Ponding	1.00		
			Depth to saturated zone	1.00		
			Seepage	1.00		
Aquents	Not rated		Very limited		Not rated	
			Ponding	1.00		
			Depth to saturated zone	1.00		
			Seepage	1.00		
Aquepts	Not rated		Very limited		Not rated	
			Ponding	1.00		
			Depth to saturated zone	1.00		
			Seepage	1.00		
3125A:						
Meehan	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
3126A:						
Wurtsmith	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00			Depth to saturated zone	0.86
3312B:						
Glendenning, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Glendenning	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 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3336A:						
Fenander	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
3403A:						
Loxley	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Seepage	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16
Beseman	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Seepage	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
					Seepage	0.22
Dawson	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Content of organic matter	1.00
	Content of organic matter	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16
3429B:						
Lara	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Too sandy	1.00	Seepage	1.00	Seepage	1.00
					Depth to saturated zone	0.99
3429C:						
Lara	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Too sandy	1.00	Seepage	1.00	Seepage	1.00
	Slope	0.04	Slope	0.04	Depth to saturated zone	0.99
					Slope	0.04
3446A:						
Newson	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00	Ponding	1.00	Seepage	1.00
	Ponding	1.00			Ponding	1.00
3448B:						
Grettum	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00				

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3448C:						
Grettum----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00	Slope	0.04	Slope	0.04
	Slope	0.04				
3510B:						
Pomroy----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00	Seepage	1.00
	Too sandy	0.50	Depth to saturated zone	0.75	Depth to saturated zone	0.86
					Too sandy	0.50
Fremstadt----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50			Too sandy	0.50
Fremstadt, stony----	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50			Too sandy	0.50
3510C:						
Pomroy----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00	Seepage	1.00
	Too sandy	0.50	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.16	Slope	0.16	Too sandy	0.50
					Slope	0.16
Fremstadt----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50	Slope	0.16	Too sandy	0.50
	Slope	0.16			Slope	0.16
Fremstadt, stony----	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	0.50	Slope	0.16	Too sandy	0.50
	Slope	0.16			Slope	0.16
3511A:						
Bushville----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
			Seepage	1.00		
3516A:						
Slimlake----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00			Depth to saturated zone	0.47
3625A:						
Lino----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00

Table 18b.--Sanitary Facilities--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3626A:						
Crex	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Too sandy	1.00			Depth to saturated zone	0.86
3629B:						
Perida	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
	Depth to saturated zone	0.09				
3636B:						
Plainbo	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
	Seepage	1.00	Depth to bedrock	1.00	Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
3636C:						
Plainbo	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Seepage	1.00	Depth to bedrock	1.00
	Seepage	1.00	Depth to bedrock	1.00	Too sandy	1.00
	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water	Not rated		Not rated		Not rated	

Table 19a.--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 soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
3A:				
Totagatic	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.44
	Thickest layer	0.00	Bottom layer	0.64
Bowstring	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Ausable	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.58
12A:				
Makwa	Fair		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.43	Thickest layer	0.08
22A:				
Comstock	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
27A:				
Scott Lake	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
28B:				
Haugen, very stony	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.04
Haugen	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.04
Rosholt, very stony	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
28C:				
Haugen, very stony	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.04

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
28C:				
Haugen	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.04
Rosholt, very stony	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
38A:				
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
38B:				
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
38C:				
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
38D:				
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
42D:				
Amery	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.03
	Bottom layer	0.00	Thickest layer	0.03
43B:				
Antigo	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
43C:				
Antigo	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
63A:				
Crystal Lake	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
63B:				
Crystal Lake	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
63C:				
Crystal Lake	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
64A:				
Totagatic	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.44
	Thickest layer	0.00	Bottom layer	0.64
Winterfield	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.10
	Bottom layer	0.00	Bottom layer	0.64
69C:				
Keweenaw	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.10
	Thickest layer	0.00	Thickest layer	0.11
Sayner	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.43
	Bottom layer	0.08	Thickest layer	0.72
Vilas	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.72
	Thickest layer	0.00	Bottom layer	0.86
69E:				
Keweenaw	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.10
	Thickest layer	0.00	Thickest layer	0.11
Sayner	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.43
	Bottom layer	0.08	Thickest layer	0.72
Vilas	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.72
	Thickest layer	0.00	Bottom layer	0.86
82B:				
Cutaway	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Branstad	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
82C:				
Cutaway	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Branstad	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
83A:				
Smestad	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.06
85B:				
Taylor	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
85C:				
Taylor	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
86A:				
Indus	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Alango	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
89A:				
Wildwood	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
96B:				
Karlsborg	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
96C:				
Karlsborg	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
96D:				
Karlsborg	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
100B:				
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64
100C:				
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64
100D:				
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64
120B:				
Kost	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.21
	Thickest layer	0.00	Bottom layer	0.82
127D:				
Amery	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.03
	Bottom layer	0.00	Thickest layer	0.03
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
127E:				
Amery	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.03
	Bottom layer	0.00	Thickest layer	0.03
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
151A:				
Bluffton	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
152A:				
Alstad	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.01
154E:				
Cushing	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.01
156B:				
Magnor, very stony	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.04
Magnor	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.04
157B:				
Freeon, very stony	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.04
Freeon	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.04
157C:				
Freeon, very stony	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.04
Freeon	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.04
160A:				
Oesterle	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.04
	Bottom layer	0.16	Bottom layer	0.50
165B:				
Elderon	Poor		Poor	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.00

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
185B:				
Tradelake	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
Taylor	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
185C:				
Tradelake	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
Taylor	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
185D:				
Tradelake	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
Taylor	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
185E:				
Tradelake	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
Taylor	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
189A:				
Siren	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
193A:				
Minocqua	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
337A:				
Plover	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
368B:				
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
368C:				
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
368D:				
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
368E:				
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
380B:				
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
380C:				
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
380D:				
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
Rosholt	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.16	Bottom layer	0.50
383B:				
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.64
	Bottom layer	0.01	Bottom layer	0.64

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
383C:				
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
383D:				
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
392C:				
Rockmarsh	Poor		Poor	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.00
Dairyland	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.24	Bottom layer	0.05
Makwa	Fair		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.43	Thickest layer	0.08
396B:				
Friendship	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.69
	Thickest layer	0.00	Bottom layer	0.86
Wurtsmith	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.56
	Thickest layer	0.00	Bottom layer	0.82
Grayling	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.64
	Thickest layer	0.00	Bottom layer	0.64
397A:				
Perchlake	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.44
	Thickest layer	0.00	Bottom layer	0.64
399B:				
Grayling	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.64
	Thickest layer	0.00	Bottom layer	0.64
399C:				
Grayling	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.64
	Thickest layer	0.00	Bottom layer	0.64
399D:				
Grayling	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.64
	Thickest layer	0.00	Bottom layer	0.64
406A:				
Loxley	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
407A:				
Seelyeville---------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Markey----------	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.64
410A:				
Seelyeville---------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Cathro----------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
419A:				
Seelyeville---------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Cathro----------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
Markey----------	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.64
421A:				
Dora----------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Markey----------	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.64
Seelyeville---------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
422A:				
Seelyeville---------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Cathro----------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
Rondeau----------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
426B:				
Emmert----------	Fair		Fair	
	Bottom layer	0.50	Thickest layer	0.61
	Thickest layer	0.50	Bottom layer	0.80

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
426B:				
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64
426C:				
Emmert	Fair		Fair	
	Bottom layer	0.50	Thickest layer	0.61
	Thickest layer	0.50	Bottom layer	0.80
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64
426D:				
Emmert	Fair		Fair	
	Bottom layer	0.50	Thickest layer	0.61
	Thickest layer	0.50	Bottom layer	0.80
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64
430A:				
Freya	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.20
439B:				
Graycalm	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.18
	Thickest layer	0.00	Thickest layer	0.47
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64
439C:				
Graycalm	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.18
	Thickest layer	0.00	Thickest layer	0.47
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
439D:				
Graycalm	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.18
	Thickest layer	0.00	Thickest layer	0.47
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64
442C:				
Haugen	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.04
Greenwood	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
443D:				
Amery	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.03
	Bottom layer	0.00	Thickest layer	0.03
Greenwood	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
459A:				
Loxley	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Daisybay	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Dawson	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.05	Bottom layer	0.64
461A:				
Bowstring	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
465A:				
Newson	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.82
	Thickest layer	0.00	Thickest layer	0.82
Meehan	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.48
	Thickest layer	0.00	Bottom layer	0.82
469E:				
Bigisland	Fair		Fair	
	Thickest layer	0.09	Thickest layer	0.00
	Bottom layer	0.39	Bottom layer	0.04

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
469E:				
Milaca	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
471B:				
Dairyland	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.24	Bottom layer	0.05
Emmert	Fair		Fair	
	Bottom layer	0.50	Thickest layer	0.61
	Thickest layer	0.50	Bottom layer	0.80
471C:				
Dairyland	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.24	Bottom layer	0.05
Emmert	Fair		Fair	
	Bottom layer	0.50	Thickest layer	0.61
	Thickest layer	0.50	Bottom layer	0.80
472A:				
Rockmarsh	Poor		Poor	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.00
Clemens	Fair		Fair	
	Bottom layer	0.09	Thickest layer	0.07
	Thickest layer	0.09	Bottom layer	0.09
473A:				
Dairyland	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.24	Bottom layer	0.05
Skog	Fair		Fair	
	Bottom layer	0.62	Thickest layer	0.08
	Thickest layer	0.62	Bottom layer	0.66
484A:				
Greenwood	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Beseman	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
485C:				
Lupton	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Tawas	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.20

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
495B:				
Karlsborg	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
Grettum	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.36
	Thickest layer	0.00	Bottom layer	0.58
Perida	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.58
	Thickest layer	0.00	Thickest layer	0.72
495C:				
Karlsborg	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
Grettum	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.36
	Thickest layer	0.00	Bottom layer	0.58
Perida	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.58
	Thickest layer	0.00	Thickest layer	0.72
495D:				
Karlsborg	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
Grettum	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.36
	Thickest layer	0.00	Bottom layer	0.58
Perida	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.58
	Thickest layer	0.00	Thickest layer	0.72
496B:				
Karlsborg	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
496C:				
Karlsborg	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
496D:				
Karlsborg	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.72
497A:				
Meenon	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.72
	Thickest layer	0.00	Bottom layer	0.72

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
521A:				
Dody	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.13
523A:				
Nokasippi	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.07
529B:				
Perida	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.58
	Thickest layer	0.00	Thickest layer	0.72
531A:				
Stengel	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.10
	Thickest layer	0.00	Bottom layer	0.82
542B:				
Haugen, very stony	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.04
Haugen	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.04
542C:				
Haugen, very stony	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.04
Haugen	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.04
544F:				
Menahga	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.64
Mahtomedi	Fair		Fair	
	Thickest layer	0.00	Bottom layer	0.64
	Bottom layer	0.01	Thickest layer	0.64
553B:				
Branstad	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
553C:				
Branstad	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
553D:				
Branstad	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
555A:				
Fordum	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.53
557B:				
Shawano	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.36
	Thickest layer	0.00	Thickest layer	0.36
557C:				
Shawano	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.36
	Thickest layer	0.00	Thickest layer	0.36
557D:				
Shawano	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.36
	Thickest layer	0.00	Thickest layer	0.36
586A:				
Chelmo	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.86
600A:				
Haplosaprists	Not rated		Not rated	
Psammaquents	Not rated		Not rated	
615B:				
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
615C:				
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
615D:				
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
620C:				
Lundeen	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Haustrup	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Rock outcrop	Not rated		Not rated	
621A:				
Bjorkland	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.30

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
623A:				
Capitola	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.04
624A:				
Ossmer	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
631A:				
Giese	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.02
632A:				
Aftad	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
632B:				
Aftad	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
632C:				
Aftad	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
634C:				
Drylanding	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Beartree	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Rock outcrop	Not rated		Not rated	
635C:				
Drylanding	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Beartree	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Rock outcrop	Not rated		Not rated	
648B:				
Sconsin	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.25	Bottom layer	0.01

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
669D:				
Fremstadt, stony----	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.07
	Bottom layer	0.00	Thickest layer	0.07
Pomroy----------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.08
671B:				
Spoonerhill, stony--	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.11
	Thickest layer	0.00	Thickest layer	0.11
Spoonerhill---------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.11
	Thickest layer	0.00	Thickest layer	0.11
706A:				
Winterfield---------	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.64
Totagatic----------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.44
	Thickest layer	0.00	Bottom layer	0.64
715A:				
Mora----------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
717B:				
Milaca----------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
717C:				
Milaca----------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
720F:				
Haustrup----------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Lundeen----------	Poor		Poor	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.00
Rock outcrop--------	Not rated		Not rated	
726B:				
Sissabagama---------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.36

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
742B:				
Milaca	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
742C:				
Milaca	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
742D:				
Milaca	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
755A:				
Moppet	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.42
Fordum	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.53
771A:				
Lenroot	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.54
812B:				
Mora	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
825A:				
Meehan	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.48
	Thickest layer	0.00	Bottom layer	0.82
896A:				
Wurtsmith	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.56
	Thickest layer	0.00	Bottom layer	0.82
980A:				
Soderbeck	Fair		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.09	Thickest layer	0.09
1070C:				
Fremstadt	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.07
	Bottom layer	0.00	Thickest layer	0.07
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
1070D:				
Fremstadt	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.07
	Bottom layer	0.00	Thickest layer	0.07
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
1080B:				
Spoonerhill	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.10
	Thickest layer	0.00	Thickest layer	0.10
Spoonerhill, stony	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.11
	Thickest layer	0.00	Thickest layer	0.11
Cress	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.16	Bottom layer	0.50
2002:				
Udorthents, earthen dams	Not rated		Not rated	
2015:				
Pits	Not rated		Not rated	
2050:				
Landfill	Not rated		Not rated	
3011A:				
Barronett	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
3082E:				
Braham	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.10
Shawano	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.36
	Thickest layer	0.00	Thickest layer	0.36
3114A:				
Saprists	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Aquents	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.82
	Thickest layer	0.00	Thickest layer	0.82
Aquepts	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.50

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
3125A:				
Meehan	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.48
	Thickest layer	0.00	Bottom layer	0.82
3126A:				
Wurtsmith	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.54
	Thickest layer	0.00	Bottom layer	0.82
3312B:				
Glendenning, very stony	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.04
Glendenning	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.04
3336A:				
Fenander	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
3403A:				
Loxley	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Beseman	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Dawson	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.64
3429B:				
Lara	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.20
3429C:				
Lara	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.20
3446A:				
Newson	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.82
	Thickest layer	0.00	Thickest layer	0.82
3448B:				
Grettum	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.36
	Thickest layer	0.00	Bottom layer	0.58
3448C:				
Grettum	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.36
	Thickest layer	0.00	Bottom layer	0.58

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
3510B:				
Pomroy	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.08
Fremstadt	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.07
	Bottom layer	0.00	Thickest layer	0.07
Fremstadt, stony	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.07
	Bottom layer	0.00	Thickest layer	0.07
3510C:				
Pomroy	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.08
Fremstadt	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.07
	Bottom layer	0.00	Thickest layer	0.07
Fremstadt, stony	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.07
	Bottom layer	0.00	Thickest layer	0.07
3511A:				
Bushville	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.07
3516A:				
Slimlake	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.54
	Thickest layer	0.00	Bottom layer	0.79
3625A:				
Lino	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.13
	Thickest layer	0.00	Bottom layer	0.30
3626A:				
Crex	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.34
	Thickest layer	0.00	Bottom layer	0.88
3629B:				
Perida	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.58
	Thickest layer	0.00	Thickest layer	0.72
3636B:				
Plainbo	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.19
	Bottom layer	0.00	Bottom layer	0.51
3636C:				
Plainbo	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.19
	Bottom layer	0.00	Bottom layer	0.51

Table 19a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
M-W:				
Miscellaneous water	Not rated		Not rated	
W:				
Water----------	Not rated		Not rated	

Table 19b.--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 soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:						
Totagatic	Poor		Poor		Poor	
	Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
	Too acid	0.68				
Bowstring	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
Ausable	Poor		Poor		Poor	
	Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
	Too acid	0.97				
12A:						
Makwa	Fair		Poor		Poor	
	Stone content	0.16	Depth to saturated zone	0.00	Hard to reclaim (rock fragments)	0.00
	Low content of organic matter	0.50	Stone content	0.16	Depth to saturated zone	0.00
	Too acid	0.68	Cobble content	0.94	Rock fragments	0.00
22A:						
Comstock	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.54			Too acid	0.98
	Water erosion	0.90				
27A:						
Scott Lake	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.89	Hard to reclaim (rock fragments)	0.32
	Too acid	0.68			Depth to saturated zone	0.89
	Droughty	0.95			Rock fragments	0.97
28B:						
Haugen, very stony	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Rock fragments	0.00
					Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
28B:						
Haugen----------	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Rock fragments	0.00
					Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
Rosholt, very stony	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.12
	Droughty	0.60			Hard to reclaim (rock fragments)	0.32
	Too acid	0.68				
Rosholt----------	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.12
	Droughty	0.67			Hard to reclaim (rock fragments)	0.50
	Too acid	0.68				
28C:						
Haugen, very stony--	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Rock fragments	0.00
					Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
					Slope	0.96
					Too acid	0.98
Haugen----------	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Rock fragments	0.00
					Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
					Slope	0.96
					Too acid	0.98
Rosholt, very stony	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.12
	Droughty	0.60			Hard to reclaim (rock fragments)	0.32
	Too acid	0.68			Slope	0.96
Rosholt----------	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.12
	Droughty	0.67			Hard to reclaim (rock fragments)	0.50
	Too acid	0.68			Slope	0.96

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
38A:						
Rosholt----------	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.12
	Droughty	0.67			Hard to reclaim (rock fragments)	0.50
	Too acid	0.68				
38B:						
Rosholt----------	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.12
	Droughty	0.67			Hard to reclaim (rock fragments)	0.50
	Too acid	0.68				
38C:						
Rosholt----------	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.12
	Droughty	0.67			Hard to reclaim (rock fragments)	0.50
	Too acid	0.68			Slope	0.96
38D:						
Rosholt----------	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.98	Slope	0.00
	Droughty	0.67			Rock fragments	0.12
	Too acid	0.68			Hard to reclaim (rock fragments)	0.50
42D:						
Amery----------	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.98	Slope	0.00
	Too acid	0.54			Rock fragments	0.00
					Hard to reclaim (dense layer)	0.03
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
43B:						
Antigo----------	Fair		Good		Fair	
	Low content of organic matter	0.12			Hard to reclaim (rock fragments)	0.68
	Too acid	0.68				
	Water erosion	0.90				
43C:						
Antigo----------	Fair		Good		Fair	
	Low content of organic matter	0.12			Slope	0.63
	Too acid	0.68			Hard to reclaim (rock fragments)	0.68
	Water erosion	0.90				
63A:						
Crystal Lake--------	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Depth to saturated zone	0.53
	Too acid	0.54			Too acid	0.98
	Water erosion	0.90				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
63B:						
Crystal Lake--------	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Depth to saturated zone	0.53
	Too acid	0.54			Too acid	0.98
	Water erosion	0.90				
63C:						
Crystal Lake--------	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Depth to saturated zone	0.53
	Too acid	0.54			Slope	0.96
	Water erosion	0.90			Too acid	0.98
64A:						
Totagatic----------	Poor		Poor		Poor	
	Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
	Too acid	0.68				
Winterfield---------	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			Rock fragments	0.88
	Droughty	0.48				
69C:						
Keweenaw----------	Poor		Good		Fair	
	Wind erosion	0.00			Too sandy	0.04
	Too sandy	0.04			Slope	0.84
	Low content of organic matter	0.12			Rock fragments	0.88
	Too acid	0.68				
Sayner----------	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.00
	Droughty	0.01			Hard to reclaim (rock fragments)	0.50
	Low content of organic matter	0.12			Slope	0.84
	Too acid	0.54				
Vilas----------	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	0.68				
	Droughty	0.96				
69E:						
Keweenaw----------	Poor		Poor		Poor	
	Wind erosion	0.00	Slope	0.00	Slope	0.00
	Too sandy	0.04			Too sandy	0.04
	Low content of organic matter	0.12			Rock fragments	0.88
	Too acid	0.68				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
69E:						
Sayner	Poor		Poor		Poor	
	Too sandy	0.00	Slope	0.00	Slope	0.00
	Wind erosion	0.00			Too sandy	0.00
	Droughty	0.01			Rock fragments	0.00
	Low content of organic matter	0.12			Hard to reclaim (rock fragments)	0.50
	Too acid	0.54				
Vilas	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	0.68				
	Droughty	0.96				
82B:						
Cutaway	Poor		Fair		Fair	
	Wind erosion	0.00	Depth to saturated zone	0.53	Depth to saturated zone	0.53
	Low content of organic matter	0.12				
	Too acid	0.99				
Branstad	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Depth to saturated zone	0.53
82C:						
Cutaway	Poor		Fair		Fair	
	Wind erosion	0.00	Depth to saturated zone	0.53	Depth to saturated zone	0.53
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.99				
Branstad	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Depth to saturated zone	0.53
					Slope	0.96
83A:						
Smestad	Poor		Poor		Poor	
	Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too sandy	0.02				
	Too acid	0.32	Low strength	0.00	Too sandy	0.02
	Low content of organic matter	0.50	Shrink-swell	0.81		
85B:						
Taylor	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Low content of organic matter	0.12	Shrink-swell	0.00	Depth to saturated zone	0.00
			Depth to saturated zone	0.00		
	Water erosion	0.90				
	Too acid	0.95				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
85C:						
Taylor	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Low content of organic matter	0.12	Shrink-swell	0.00	Depth to saturated zone	0.00
	Water erosion	0.90	Depth to saturated zone	0.00	Slope	0.96
	Too acid	0.95				
86A:						
Indus	Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Too clayey	0.00
	Low content of organic matter	0.12	Low strength	0.00	Depth to saturated zone	0.00
	Too acid	0.97	Shrink-swell	0.00	Carbonate content	0.97
	Carbonate content	0.97				
Alango	Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Too clayey	0.00
	Low content of organic matter	0.08	Shrink-swell	0.00	Depth to saturated zone	0.00
	Carbonate content	0.68	Low strength	0.00		
	Too acid	0.88				
89A:						
Wildwood	Poor		Poor		Poor	
	Wind erosion	0.00	Depth to saturated zone	0.00	Too clayey	0.00
	Too clayey	0.00	Low strength	0.00	Depth to saturated zone	0.00
	Low content of organic matter	0.12	Shrink-swell	0.18	Carbonate content	0.97
	Too acid	0.84				
	Carbonate content	0.97				
	Droughty	0.99				
96B:						
Karlsborg	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Shrink-swell	0.95	Depth to saturated zone	0.14
	Low content of organic matter	0.12				
	Too acid	0.68				
96C:						
Karlsborg	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Shrink-swell	0.95	Depth to saturated zone	0.14
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.68				
96D:						
Karlsborg	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Shrink-swell	0.95	Slope	0.00
	Low content of organic matter	0.12	Slope	0.98	Depth to saturated zone	0.14
	Too acid	0.68				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
100B:						
Menahga	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Too acid	0.88
	Low content of organic matter	0.12				
	Droughty	0.23				
	Too acid	0.50				
100C:						
Menahga	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Too acid	0.88
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.50				
	Droughty	0.60				
100D:						
Menahga	Poor		Fair		Poor	
	Wind erosion	0.00	Slope	0.32	Slope	0.00
	Too sandy	0.00			Too sandy	0.00
	Low content of organic matter	0.12			Too acid	0.88
	Too acid	0.50				
	Droughty	0.60				
120B:						
Kost	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00				
	Low content of organic matter	0.12				
	Droughty	0.36				
	Too acid	0.97				
127D:						
Amery	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.98	Slope	0.00
	Too acid	0.54			Rock fragments	0.00
					Hard to reclaim (dense layer)	0.03
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
Rosholt	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.98	Slope	0.00
	Droughty	0.60			Rock fragments	0.12
	Too acid	0.68			Hard to reclaim (rock fragments)	0.32

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
127E:						
Amery	Fair		Poor		Poor	
	Low content of organic matter	0.12	Slope	0.00	Slope	0.00
	Too acid	0.54			Rock fragments	0.00
					Hard to reclaim (dense layer)	0.03
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
Rosholt	Fair		Poor		Poor	
	Low content of organic matter	0.12	Slope	0.00	Slope	0.00
	Droughty	0.60			Rock fragments	0.12
	Too acid	0.68			Hard to reclaim (rock fragments)	0.32
151A:						
Bluffton	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
			Shrink-swell	0.87		
152A:						
Alstad	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	Shrink-swell	0.98		
154E:						
Cushing	Fair		Poor		Poor	
	Low content of organic matter	0.40	Slope	0.00	Slope	0.00
	Too acid	0.97	Shrink-swell	0.92		
156B:						
Magnor, very stony	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Too acid	0.20			Depth to saturated zone	0.00
	Water erosion	0.90			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
Magnor	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Too acid	0.20			Depth to saturated zone	0.00
	Water erosion	0.90			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
157B:						
Freeon, very stony	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.68			Rock fragments	0.00
	Water erosion	0.90			Hard to reclaim (rock fragments)	0.92

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
157B:						
Freeon	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.61			Rock fragments	0.00
	Water erosion	0.90			Hard to reclaim (rock fragments)	0.92
157C:						
Freeon, very stony	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.68			Rock fragments	0.00
	Water erosion	0.90			Hard to reclaim (rock fragments)	0.92
					Slope	0.96
Freeon	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.61			Rock fragments	0.00
	Water erosion	0.90			Hard to reclaim (rock fragments)	0.92
					Slope	0.96
160A:						
Oesterle	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.68			Rock fragments	0.12
	Droughty	0.91			Hard to reclaim (rock fragments)	0.32
165B:						
Elderon	Poor		Fair		Poor	
	Low content of organic matter	0.00	Cobble content	0.14	Rock fragments	0.00
	Droughty	0.00			Hard to reclaim (rock fragments)	0.00
	Too sandy	0.22			Too sandy	0.22
	Cobble content	0.86				
	Too acid	0.99				
185B:						
Tradelake	Poor		Fair		Poor	
	Too clayey	0.00	Depth to saturated zone	0.14	Too clayey	0.00
	Low content of organic matter	0.12	Shrink-swell	0.38	Depth to saturated zone	0.14
	Too acid	0.84				
Taylor	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Low content of organic matter	0.12	Shrink-swell	0.00	Depth to saturated zone	0.00
	Water erosion	0.90	Depth to saturated zone	0.00		
	Too acid	0.95				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
185C:						
Tradelake----------	Poor		Fair		Poor	
	Too clayey	0.00	Depth to saturated zone	0.14	Too clayey	0.00
	Low content of organic matter	0.12	Shrink-swell	0.38	Depth to saturated zone	0.14
	Too acid	0.84			Slope	0.96
Taylor----------	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Low content of organic matter	0.12	Shrink-swell	0.00	Depth to saturated zone	0.00
	Water erosion	0.90	Depth to saturated zone	0.00	Slope	0.96
	Too acid	0.95				
185D:						
Tradelake----------	Poor		Fair		Poor	
	Too clayey	0.00	Shrink-swell	0.38	Too clayey	0.00
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Slope	0.00
	Too acid	0.84	Slope	0.76	Depth to saturated zone	0.53
Taylor----------	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Low content of organic matter	0.12	Shrink-swell	0.00	Slope	0.00
	Water erosion	0.90	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.95	Slope	0.76		
185E:						
Tradelake----------	Poor		Poor		Poor	
	Too clayey	0.00	Slope	0.00	Slope	0.00
	Low content of organic matter	0.12	Shrink-swell	0.38	Too clayey	0.00
	Too acid	0.84	Depth to saturated zone	0.53	Depth to saturated zone	0.53
Taylor----------	Poor		Poor		Poor	
	Too clayey	0.00	Slope	0.00	Slope	0.00
	Low content of organic matter	0.12	Low strength	0.00	Too clayey	0.00
	Water erosion	0.90	Shrink-swell	0.00	Depth to saturated zone	0.00
	Too acid	0.95	Depth to saturated zone	0.00		
189A:						
Siren----------	Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Too clayey	0.00
	Low content of organic matter	0.00	Low strength	0.00	Depth to saturated zone	0.00
	Too acid	0.20	Shrink-swell	0.42	Too acid	0.98
193A:						
Minocqua----------	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.68			Rock fragments	0.12
					Hard to reclaim (rock fragments)	0.68

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
337A:						
Plover	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.68				
368B:						
Mahtomedi	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.00
	Droughty	0.00			Hard to reclaim (rock fragments)	0.92
	Low content of organic matter	0.12				
	Too acid	0.84				
Cress	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.02
	Too sandy	0.22			Too sandy	0.22
	Droughty	0.40			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Too acid	0.98
368C:						
Mahtomedi	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.00
	Droughty	0.00			Hard to reclaim (rock fragments)	0.92
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.84				
Cress	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.02
	Too sandy	0.22			Too sandy	0.22
	Droughty	0.40			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Slope	0.96
					Too acid	0.98
368D:						
Mahtomedi	Poor		Fair		Poor	
	Too sandy	0.00	Slope	0.50	Too sandy	0.00
	Wind erosion	0.00			Slope	0.00
	Droughty	0.00			Rock fragments	0.00
	Low content of organic matter	0.12			Hard to reclaim (rock fragments)	0.92
	Too acid	0.84				
Cress	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.50	Slope	0.00
	Too sandy	0.22			Rock fragments	0.02
	Droughty	0.40			Too sandy	0.22
	Too acid	0.54			Hard to reclaim (rock fragments)	0.32
					Too acid	0.98

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
368E:						
Mahtomedi	Poor		Poor		Poor	
	Too sandy	0.00	Slope	0.00	Slope	0.00
	Wind erosion	0.00			Too sandy	0.00
	Droughty	0.00			Rock fragments	0.00
	Low content of organic matter	0.12			Hard to reclaim (rock fragments)	0.92
	Too acid	0.84				
Cress	Fair		Poor		Poor	
	Low content of organic matter	0.12	Slope	0.00	Slope	0.00
	Too sandy	0.22			Rock fragments	0.02
	Droughty	0.40			Too sandy	0.22
	Too acid	0.54			Hard to reclaim (rock fragments)	0.32
					Too acid	0.98
380B:						
Cress	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.02
	Too sandy	0.22			Too sandy	0.22
	Droughty	0.40			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Too acid	0.98
Rosholt	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.12
	Droughty	0.67			Hard to reclaim (rock fragments)	0.50
	Too acid	0.68				
380C:						
Cress	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.02
	Too sandy	0.22			Too sandy	0.22
	Droughty	0.40			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Slope	0.96
					Too acid	0.98
Rosholt	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.12
	Droughty	0.67			Hard to reclaim (rock fragments)	0.50
	Too acid	0.68			Slope	0.96
380D:						
Cress	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.32	Slope	0.00
	Too sandy	0.22			Rock fragments	0.02
	Droughty	0.40			Too sandy	0.22
	Too acid	0.54			Hard to reclaim (rock fragments)	0.32
					Too acid	0.98
Rosholt	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.32	Slope	0.00
	Droughty	0.67			Rock fragments	0.12
	Too acid	0.68			Hard to reclaim (rock fragments)	0.50

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
383B:						
Mahtomedi	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.00
	Droughty	0.00			Hard to reclaim (rock fragments)	0.92
	Low content of organic matter	0.12				
	Too acid	0.84				
383C:						
Mahtomedi	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.00
	Droughty	0.00			Hard to reclaim (rock fragments)	0.92
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.84				
383D:						
Mahtomedi	Poor		Fair		Poor	
	Too sandy	0.00	Slope	0.32	Too sandy	0.00
	Wind erosion	0.00			Slope	0.00
	Droughty	0.00			Rock fragments	0.00
	Low content of organic matter	0.12			Hard to reclaim (rock fragments)	0.92
	Too acid	0.84				
392C:						
Rockmarsh	Poor		Poor		Poor	
	Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.54	Cobble content	0.00	Rock fragments	0.00
	Cobble content	0.54	Stone content	0.92	Hard to reclaim (rock fragments)	0.00
	Droughty	0.79			Hard to reclaim (dense layer)	0.05
	Stone content	0.92			Slope	0.63
Dairyland	Poor		Poor		Poor	
	Low content of organic matter	0.00	Cobble content	0.00	Hard to reclaim (dense layer)	0.00
	Droughty	0.09	Depth to saturated zone	0.53	Rock fragments	0.00
	Too sandy	0.18			Hard to reclaim (rock fragments)	0.00
	Cobble content	0.64			Too sandy	0.18
	Too acid	0.84			Depth to saturated zone	0.53
					Slope	0.63
Makwa	Fair		Poor		Poor	
	Stone content	0.16	Depth to saturated zone	0.00	Hard to reclaim (rock fragments)	0.00
	Low content of organic matter	0.50	Stone content	0.16	Depth to saturated zone	0.00
	Too acid	0.68	Cobble content	0.94	Rock fragments	0.00

Table 19b.--Construction Materials--Continued

Map symbol and soil name	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
396B:						
Friendship----------	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00				
	Droughty	0.10				
	Low content of organic matter	0.12				
	Too acid	0.68				
Wurtsmith----------	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.53	Too sandy	0.00
	Wind erosion	0.00			Depth to saturated zone	0.53
	Low content of organic matter	0.12			Too acid	0.76
	Droughty	0.13			Rock fragments	0.97
	Too acid	0.50				
Grayling----------	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00				
	Droughty	0.00				
	Low content of organic matter	0.12				
	Too acid	0.50				
397A:						
Perchlake----------	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				
	Too acid	0.68				
	Droughty	0.75				
399B:						
Grayling----------	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00				
	Droughty	0.00				
	Low content of organic matter	0.12				
	Too acid	0.50				
399C:						
Grayling----------	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Slope	0.96
	Droughty	0.00				
	Low content of organic matter	0.12				
	Too acid	0.50				
399D:						
Grayling----------	Poor		Fair		Poor	
	Too sandy	0.00	Slope	0.32	Too sandy	0.00
	Wind erosion	0.00			Slope	0.00
	Droughty	0.00				
	Low content of organic matter	0.12				
	Too acid	0.50				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
406A:						
Loxley	Fair		Poor		Poor	
	Too acid	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
407A:						
Seelyeville	Fair		Poor		Poor	
	Too acid	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
Markey	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
410A:						
Seelyeville	Fair		Poor		Poor	
	Too acid	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
Cathro	Fair		Poor		Poor	
	Too acid	0.99	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
419A:						
Seelyeville	Fair		Poor		Poor	
	Too acid	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
Cathro	Fair		Poor		Poor	
	Too acid	0.99	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
Markey	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
421A:						
Dora	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00

Table 19b.--Construction Materials--Continued

Map symbol and soil name	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
421A:						
Markey	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
Seelyeville	Fair		Poor		Poor	
	Too acid	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
422A:						
Seelyeville	Fair		Poor		Poor	
	Too acid	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
Cathro	Fair		Poor		Poor	
	Too acid	0.99	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
Rondeau	Poor		Poor		Poor	
	Carbonate content	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
426B:						
Emmert	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
	Low content of organic matter	0.00			Rock fragments	0.00
	Droughty	0.00				
	Too acid	0.99				
Mahtomedi	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.00
	Droughty	0.00			Hard to reclaim (rock fragments)	0.92
	Low content of organic matter	0.12				
	Too acid	0.84				
Menahga	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Too acid	0.88
	Low content of organic matter	0.12				
	Too acid	0.50				
	Droughty	0.61				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
426C:						
Emmert	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
	Low content of organic matter	0.00			Rock fragments	0.00
	Droughty	0.00			Slope	0.96
	Too acid	0.99				
Mahtomedi	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.00
	Droughty	0.00			Hard to reclaim (rock fragments)	0.92
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.84				
Menahga	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Too acid	0.88
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.50				
	Droughty	0.61				
426D:						
Emmert	Poor		Fair		Poor	
	Too sandy	0.00	Slope	0.32	Too sandy	0.00
	Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
	Low content of organic matter	0.00			Rock fragments	0.00
	Droughty	0.00			Slope	0.00
	Too acid	0.99				
Mahtomedi	Poor		Fair		Poor	
	Too sandy	0.00	Slope	0.32	Too sandy	0.00
	Wind erosion	0.00			Slope	0.00
	Droughty	0.00			Rock fragments	0.00
	Low content of organic matter	0.12			Hard to reclaim (rock fragments)	0.92
	Too acid	0.84				
Menahga	Poor		Fair		Poor	
	Wind erosion	0.00	Slope	0.32	Slope	0.00
	Too sandy	0.00			Too sandy	0.00
	Low content of organic matter	0.12			Too acid	0.88
	Too acid	0.50				
	Droughty	0.61				
430A:						
Freya	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				
	Too acid	0.99				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
439B:						
Graycalm	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Too acid	0.99
	Low content of organic matter	0.12				
	Too acid	0.50				
	Droughty	0.75				
Menahga	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Too acid	0.88
	Low content of organic matter	0.12				
	Too acid	0.50				
	Droughty	0.61				
439C:						
Graycalm	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	0.99
	Too acid	0.50				
	Droughty	0.75				
Menahga	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Too acid	0.88
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.50				
	Droughty	0.61				
439D:						
Graycalm	Poor		Fair		Poor	
	Too sandy	0.00	Slope	0.32	Too sandy	0.00
	Wind erosion	0.00			Slope	0.00
	Low content of organic matter	0.12			Too acid	0.99
	Too acid	0.50				
	Droughty	0.75				
Menahga	Poor		Fair		Poor	
	Wind erosion	0.00	Slope	0.32	Slope	0.00
	Too sandy	0.00			Too sandy	0.00
	Low content of organic matter	0.12			Too acid	0.88
	Too acid	0.50				
	Droughty	0.61				
442C:						
Haugen	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Rock fragments	0.00
					Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
442C:						
Greenwood----------	Fair		Poor		Poor	
	Too acid	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
443D:						
Amery----------	Fair		Poor		Poor	
	Low content of organic matter	0.12	Slope	0.00	Slope	0.00
	Too acid	0.54			Rock fragments	0.00
					Hard to reclaim (dense layer)	0.03
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
Greenwood----------	Fair		Poor		Poor	
	Too acid	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
459A:						
Loxley----------	Fair		Poor		Poor	
	Too acid	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
Daisybay----------	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.50	Shrink-swell	0.98	Content of organic matter	0.00
					Too acid	0.50
Dawson----------	Poor		Poor		Poor	
	Too acid	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
					Hard to reclaim (rock fragments)	0.82
461A:						
Bowstring----------	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
465A:						
Newson	Poor		Poor		Poor	
	Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
	Too acid	0.50			Rock fragments	0.97
	Droughty	0.97				
Meehan	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
	Droughty	0.03			Too acid	0.88
	Low content of organic matter	0.12				
	Too acid	0.50				
469E:						
Bigisland	Poor		Poor		Poor	
	Droughty	0.00	Slope	0.00	Hard to reclaim (rock fragments)	0.00
	Wind erosion	0.00	Cobble content	0.05	Rock fragments	0.00
	Too acid	0.84	Stone content	0.92	Hard to reclaim (dense layer)	0.00
	Cobble content	0.84			Slope	0.00
	Low content of organic matter	0.88				
	Stone content	0.92				
Milaca	Fair		Poor		Poor	
	Low content of organic matter	0.12	Slope	0.00	Slope	0.00
	Too acid	0.84	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Water erosion	0.99			Depth to saturated zone	0.53
471B:						
Dairyland	Poor		Poor		Poor	
	Low content of organic matter	0.00	Cobble content	0.00	Hard to reclaim (dense layer)	0.00
	Droughty	0.09	Depth to saturated zone	0.53	Rock fragments	0.00
	Too sandy	0.18			Hard to reclaim (rock fragments)	0.00
	Cobble content	0.64			Too sandy	0.18
	Too acid	0.84			Depth to saturated zone	0.53
Emmert	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Low content of organic matter	0.00			Hard to reclaim (rock fragments)	0.00
	Droughty	0.00			Rock fragments	0.00
	Too acid	0.99				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
471C:						
Dairyland----------	Poor		Poor		Poor	
	Wind erosion	0.00	Cobble content	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.00	Depth to saturated zone	0.53	Rock fragments	0.00
	Droughty	0.09			Hard to reclaim (rock fragments)	0.00
	Too sandy	0.18			Too sandy	0.18
	Cobble content	0.64			Depth to saturated zone	0.53
	Too acid	0.84			Slope	0.63
Emmert----------	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
	Low content of organic matter	0.00			Rock fragments	0.00
	Droughty	0.00			Slope	0.63
	Too acid	0.99				
472A:						
Rockmarsh----------	Poor		Poor		Poor	
	Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.54	Cobble content	0.00	Rock fragments	0.00
	Cobble content	0.54	Stone content	0.92	Hard to reclaim (rock fragments)	0.00
	Droughty	0.79			Hard to reclaim (dense layer)	0.05
	Stone content	0.92				
Clemens----------	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.54	Cobble content	0.11	Rock fragments	0.00
	Cobble content	0.88			Hard to reclaim (rock fragments)	0.00
473A:						
Dairyland----------	Poor		Poor		Poor	
	Low content of organic matter	0.00	Cobble content	0.00	Hard to reclaim (dense layer)	0.00
	Droughty	0.09	Depth to saturated zone	0.53	Rock fragments	0.00
	Too sandy	0.18			Hard to reclaim (rock fragments)	0.00
	Cobble content	0.64			Too sandy	0.18
	Too acid	0.84			Depth to saturated zone	0.53
Skog----------	Poor		Fair		Poor	
	Droughty	0.00	Depth to saturated zone	0.89	Hard to reclaim (rock fragments)	0.00
	Low content of organic matter	0.02			Rock fragments	0.00
	Too sandy	0.22			Too sandy	0.22
	Too acid	0.84			Depth to saturated zone	0.89

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
484A:						
Greenwood	Fair		Poor		Poor	
	Too acid	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
Beseman	Fair		Poor		Poor	
	Too acid	0.61	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
485C:						
Lupton	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
Tawas	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
495B:						
Karlsborg	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Shrink-swell	0.95	Depth to saturated zone	0.14
	Low content of organic matter	0.12				
	Too acid	0.68				
Grettum	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Too acid	0.99
	Low content of organic matter	0.12				
	Too acid	0.61				
	Droughty	0.98				
Perida	Poor		Fair		Poor	
	Too sandy	0.00	Shrink-swell	0.99	Too sandy	0.00
	Wind erosion	0.00			Too acid	0.99
	Low content of organic matter	0.12				
	Too acid	0.61				
495C:						
Karlsborg	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Shrink-swell	0.95	Depth to saturated zone	0.14
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.68				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
495C:						
Grettum----------	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Slope	0.96
	Low content of organic matter	0.12			Too acid	0.99
	Too acid	0.61				
	Droughty	0.98				
Perida----------	Poor		Fair		Poor	
	Too sandy	0.00	Shrink-swell	0.99	Too sandy	0.00
	Wind erosion	0.00			Slope	0.96
	Low content of organic matter	0.12			Too acid	0.99
	Too acid	0.61				
495D:						
Karlsborg----------	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Slope	0.32	Slope	0.00
	Low content of organic matter	0.12	Shrink-swell	0.95	Depth to saturated zone	0.14
	Too acid	0.68				
Grettum----------	Poor		Fair		Poor	
	Wind erosion	0.00	Slope	0.32	Too sandy	0.00
	Too sandy	0.00			Slope	0.00
	Low content of organic matter	0.12			Too acid	0.99
	Too acid	0.61				
	Droughty	0.98				
Perida----------	Poor		Fair		Poor	
	Wind erosion	0.00	Slope	0.32	Too sandy	0.00
	Too sandy	0.00	Shrink-swell	0.99	Slope	0.00
	Low content of organic matter	0.12			Too acid	0.99
	Too acid	0.61				
496B:						
Karlsborg----------	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Shrink-swell	0.95	Depth to saturated zone	0.14
	Low content of organic matter	0.12				
	Too acid	0.68				
496C:						
Karlsborg----------	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Shrink-swell	0.95	Depth to saturated zone	0.14
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.68				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
496D:						
Karlsborg	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Slope	0.32	Slope	0.00
	Low content of organic matter	0.12	Shrink-swell	0.95	Depth to saturated zone	0.14
	Too acid	0.68				
497A:						
Meenon	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			Rock fragments	0.97
	Too acid	0.80				
	Droughty	0.97				
521A:						
Dody	Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Too clayey	0.00
	Low content of organic matter	0.12	Low strength	0.00	Depth to saturated zone	0.00
	Too acid	0.68	Shrink-swell	0.89		
523A:						
Nokasippi	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.68			Hard to reclaim (dense layer)	0.03
					Hard to reclaim (rock fragments)	0.95
529B:						
Perida	Poor		Fair		Poor	
	Too sandy	0.00	Shrink-swell	0.99	Too sandy	0.00
	Wind erosion	0.00			Too acid	0.99
	Low content of organic matter	0.12				
	Too acid	0.61				
531A:						
Stengel	Poor		Poor		Poor	
	Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Droughty	0.00			Too sandy	0.01
	Too sandy	0.01				
	Too acid	0.88				
542B:						
Haugen, very stony	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Rock fragments	0.00
					Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
542B:						
Haugen	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Rock fragments	0.00
					Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
542C:						
Haugen, very stony	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Rock fragments	0.00
					Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
					Slope	0.96
					Too acid	0.98
Haugen	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Rock fragments	0.00
					Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
					Slope	0.96
					Too acid	0.98
544F:						
Menahga	Poor		Poor		Poor	
	Wind erosion	0.00	Slope	0.00	Slope	0.00
	Too sandy	0.00			Too sandy	0.00
	Low content of organic matter	0.12			Too acid	0.88
	Too acid	0.50				
	Droughty	0.60				
Mahtomedi	Poor		Poor		Poor	
	Too sandy	0.00	Slope	0.00	Slope	0.00
	Wind erosion	0.00			Too sandy	0.00
	Droughty	0.00			Rock fragments	0.00
	Low content of organic matter	0.12			Hard to reclaim (rock fragments)	0.92
	Too acid	0.84				
553B:						
Branstad	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Depth to saturated zone	0.53

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
553C:						
Branstad----------	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Depth to saturated zone	0.53
					Slope	0.96
553D:						
Branstad----------	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Slope	0.00
			Slope	0.98	Depth to saturated zone	0.53
555A:						
Fordum----------	Fair		Poor		Poor	
	Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Water erosion	0.99			Rock fragments	0.88
557B:						
Shawano----------	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Wind erosion	0.00				
	Low content of organic matter	0.12				
	Droughty	0.51				
	Too acid	0.68				
557C:						
Shawano----------	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				
	Droughty	0.51				
	Too acid	0.68				
557D:						
Shawano----------	Poor		Fair		Poor	
	Too sandy	0.00	Slope	0.32	Too sandy	0.00
	Wind erosion	0.00			Slope	0.00
	Low content of organic matter	0.12				
	Droughty	0.51				
	Too acid	0.68				
586A:						
Chelmo----------	Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Too clayey	0.00
	Low content of organic matter	0.12	Shrink-swell	0.99	Depth to saturated zone	0.00
	Too acid	0.68				
600A:						
Haplosaprists-------	Not rated		Not rated		Not rated	
Psammaquents--------	Not rated		Not rated		Not rated	

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
615B:						
Cress	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.02
	Too sandy	0.22			Too sandy	0.22
	Droughty	0.40			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Too acid	0.98
615C:						
Cress	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.02
	Too sandy	0.22			Too sandy	0.22
	Droughty	0.40			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Slope	0.96
					Too acid	0.98
615D:						
Cress	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.32	Slope	0.00
	Too sandy	0.22			Rock fragments	0.02
	Droughty	0.40			Too sandy	0.22
	Too acid	0.54			Hard to reclaim (rock fragments)	0.32
					Too acid	0.98
620C:						
Lundeen	Fair		Poor		Fair	
	Too acid	0.50	Depth to bedrock	0.00	Depth to bedrock	0.54
	Depth to bedrock	0.54	Low strength	0.78	Too acid	0.88
	Low content of organic matter	0.88				
Haustrup	Poor		Poor		Poor	
	Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Droughty	0.05			Too acid	0.68
	Too acid	0.50				
Rock outcrop	Not rated		Not rated		Not rated	
621A:						
Bjorkland	Poor		Poor		Poor	
	Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
	Low content of organic matter	0.12	Low strength	0.00	Depth to saturated zone	0.00
	Too acid	0.50	Shrink-swell	0.90	Too acid	0.98
623A:						
Capitola	Fair		Poor		Poor	
	Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.88			Hard to reclaim (dense layer)	0.03
	Droughty	0.99			Rock fragments	0.97

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
624A:						
Ossmer	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.68			Hard to reclaim (rock fragments)	0.68
	Water erosion	0.99				
631A:						
Giese	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Too acid	0.46			Depth to saturated zone	0.00
632A:						
Aftad	Fair		Fair		Fair	
	Too acid	0.68	Depth to saturated zone	0.53	Depth to saturated zone	0.53
	Low content of organic matter	0.88				
	Water erosion	0.90				
632B:						
Aftad	Fair		Fair		Fair	
	Too acid	0.68	Depth to saturated zone	0.53	Depth to saturated zone	0.53
	Low content of organic matter	0.88				
	Water erosion	0.90				
632C:						
Aftad	Fair		Fair		Fair	
	Too acid	0.68	Depth to saturated zone	0.53	Depth to saturated zone	0.53
	Low content of organic matter	0.88			Slope	0.96
	Water erosion	0.90				
634C:						
Drylanding	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
	Depth to bedrock	0.00			Depth to bedrock	0.00
	Low content of organic matter	0.12				
	Cobble content	0.86				
	Too acid	0.99				
Beartree	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Depth to saturated zone	0.00
	Depth to bedrock	0.00	Depth to saturated zone	0.00	Rock fragments	0.00
	Stone content	0.18			Depth to bedrock	0.00
	Cobble content	0.29	Cobble content	0.98		
Rock outcrop	Not rated		Not rated		Not rated	
635C:						
Drylanding	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
	Depth to bedrock	0.00			Depth to bedrock	0.00
	Low content of organic matter	0.12				
	Cobble content	0.86				
	Too acid	0.99				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
635C:						
Beartree	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Depth to saturated zone	0.00
	Depth to bedrock	0.00	Depth to saturated zone	0.00	Rock fragments	0.00
	Stone content	0.18	Cobble content	0.98	Depth to bedrock	0.00
	Cobble content	0.29				
Rock outcrop	Not rated		Not rated		Not rated	
648B:						
Sconsin	Fair		Fair		Poor	
	Too acid	0.68	Depth to saturated zone	0.14	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.88			Depth to saturated zone	0.14
	Water erosion	0.99				
669D:						
Fremstadt, stony	Poor		Fair		Poor	
	Wind erosion	0.00	Slope	0.18	Slope	0.00
	Too sandy	0.47			Too sandy	0.47
	Too acid	0.54			Rock fragments	0.72
	Low content of organic matter	0.92				
Pomroy	Poor		Fair		Poor	
	Wind erosion	0.00	Slope	0.18	Slope	0.00
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Too sandy	0.22
	Too sandy	0.22			Depth to saturated zone	0.53
	Too acid	0.54			Hard to reclaim (dense layer)	0.54
	Droughty	0.95			Rock fragments	0.97
671B:						
Spoonerhill, stony	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Too sandy	0.00
	Too acid	0.68			Depth to saturated zone	0.53
	Droughty	0.96			Hard to reclaim (rock fragments)	0.98
Spoonerhill	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Too sandy	0.00
	Too acid	0.68			Depth to saturated zone	0.53
	Droughty	0.96			Hard to reclaim (rock fragments)	0.98
706A:						
Winterfield	Poor		Poor		Poor	
	Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
	Droughty	0.80			Rock fragments	0.88
	Water erosion	0.99				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	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
706A:						
Totagatic	Poor		Poor		Poor	
	Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
	Too acid	0.68				
	Droughty	0.98				
715A:						
Mora	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			Hard to reclaim (dense layer)	0.94
	Water erosion	0.99				
717B:						
Milaca	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.84			Depth to saturated zone	0.53
	Water erosion	0.99				
717C:						
Milaca	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.84			Depth to saturated zone	0.53
	Water erosion	0.99			Slope	0.96
720F:						
Haustrup	Poor		Poor		Poor	
	Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Droughty	0.05	Slope	0.82	Slope	0.00
	Too acid	0.50			Too acid	0.68
Lundeen	Fair		Poor		Poor	
	Too acid	0.50	Depth to bedrock	0.00	Slope	0.00
	Depth to bedrock	0.54	Low strength	0.78	Depth to bedrock	0.54
	Low content of organic matter	0.88	Slope	0.82	Too acid	0.88
Rock outcrop	Not rated		Not rated		Not rated	
726B:						
Sissabagama	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	0.68				
742B:						
Milaca	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.84			Depth to saturated zone	0.53
	Water erosion	0.99				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
742C:						
Milaca	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.84			Depth to saturated zone	0.53
	Water erosion	0.99			Slope	0.96
742D:						
Milaca	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.84	Slope	0.98	Slope	0.00
	Water erosion	0.99			Depth to saturated zone	0.53
755A:						
Moppet	Fair		Fair		Fair	
	Too acid	0.50	Depth to saturated zone	0.89	Too acid	0.76
	Low content of organic matter	0.88			Depth to saturated zone	0.89
					Hard to reclaim (rock fragments)	0.92
Fordum	Fair		Poor		Poor	
	Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Water erosion	0.99			Rock fragments	0.88
771A:						
Lenroot	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.53	Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.00
	Droughty	0.11			Depth to saturated zone	0.53
	Low content of organic matter	0.12			Hard to reclaim (rock fragments)	0.92
	Too acid	0.84				
812B:						
Mora	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			Hard to reclaim (dense layer)	0.94
825A:						
Meehan	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
	Droughty	0.03			Too acid	0.88
	Low content of organic matter	0.12				
	Too acid	0.50				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
896A:						
Wurtsmith----------	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.53	Too sandy	0.00
	Wind erosion	0.00			Depth to saturated zone	0.53
	Droughty	0.00			Too acid	0.76
	Low content of organic matter	0.12				
	Too acid	0.20				
980A:						
Soderbeck----------	Fair		Poor		Poor	
	Droughty	0.04	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12	Cobble content	0.01	Depth to saturated zone	0.00
	Too acid	0.92	Depth to bedrock	0.58	Rock fragments	0.00
	Cobble content	0.95				
1070C:						
Fremstadt----------	Fair		Good		Fair	
	Too sandy	0.47			Too sandy	0.47
	Too acid	0.68			Rock fragments	0.72
	Low content of organic matter	0.92			Slope	0.84
Cress----------	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.02
	Too sandy	0.22			Too sandy	0.22
	Droughty	0.40			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Slope	0.96
					Too acid	0.98
1070D:						
Fremstadt----------	Fair		Fair		Poor	
	Too sandy	0.47	Slope	0.08	Slope	0.00
	Too acid	0.68			Too sandy	0.47
	Low content of organic matter	0.92			Rock fragments	0.72
Cress----------	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.32	Slope	0.00
	Too sandy	0.22			Rock fragments	0.02
	Droughty	0.40			Too sandy	0.22
	Too acid	0.54			Hard to reclaim (rock fragments)	0.32
					Too acid	0.98
1080B:						
Spoonerhill---------	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Too sandy	0.00
	Too acid	0.68			Rock fragments	0.03
	Droughty	0.96			Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.98

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1080B:						
Spoonerhill, stony--	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.53	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Too sandy	0.00
	Too acid	0.68			Depth to saturated zone	0.53
	Droughty	0.96			Hard to reclaim (rock fragments)	0.98
Cress----------	Fair		Good		Fair	
	Low content of organic matter	0.12			Rock fragments	0.02
	Too sandy	0.22			Too sandy	0.22
	Droughty	0.40			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Too acid	0.98
2002:						
Udorthents, earthen dams----------	Not rated		Not rated		Not rated	
2015:						
Pits----------	Not rated		Not rated		Not rated	
2050:						
Landfill----------	Not rated		Not rated		Not rated	
3011A:						
Barronett----------	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.68				
	Water erosion	0.90				
3082E:						
Braham----------	Poor		Fair		Poor	
	Wind erosion	0.00	Slope	0.50	Slope	0.00
	Too sandy	0.04			Too sandy	0.04
	Low content of organic matter	0.12				
	Too acid	0.54				
Shawano----------	Poor		Poor		Poor	
	Too sandy	0.00	Slope	0.00	Too sandy	0.00
	Wind erosion	0.00			Slope	0.00
	Low content of organic matter	0.12				
	Droughty	0.51				
	Too acid	0.68				
3114A:						
Saprists----------	Fair		Poor		Poor	
	Too acid	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3114A:						
Aquents	Poor		Poor		Poor	
	Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
	Too acid	0.50			Rock fragments	0.97
	Droughty	0.97				
Aquepts	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.68			Rock fragments	0.12
					Hard to reclaim (rock fragments)	0.68
3125A:						
Meehan	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
	Droughty	0.06			Too acid	0.88
	Low content of organic matter	0.12				
	Too acid	0.50				
3126A:						
Wurtsmith	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.53	Too sandy	0.00
	Wind erosion	0.00			Depth to saturated zone	0.53
	Low content of organic matter	0.12			Too acid	0.76
	Droughty	0.15			Rock fragments	0.97
	Too acid	0.50				
3312B:						
Glendenning, very stony	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Too acid	0.68			Depth to saturated zone	0.00
					Rock fragments	0.12
					Hard to reclaim (rock fragments)	0.98
Glendenning	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Too acid	0.68			Depth to saturated zone	0.00
					Rock fragments	0.12
					Hard to reclaim (rock fragments)	0.98
3336A:						
Fenander	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.99				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3403A:						
Loxley	Fair		Poor		Poor	
	Too acid	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
Beseman	Fair		Poor		Poor	
	Too acid	0.61	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
Dawson	Poor		Poor		Poor	
	Too acid	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
					Too acid	0.12
3429B:						
Lara	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Shrink-swell	0.98	Depth to saturated zone	0.14
	Low content of organic matter	0.12				
	Too acid	0.84				
3429C:						
Lara	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.14	Too sandy	0.00
	Wind erosion	0.00	Shrink-swell	0.98	Depth to saturated zone	0.14
	Low content of organic matter	0.12			Slope	0.96
	Too acid	0.84				
3446A:						
Newson	Poor		Poor		Poor	
	Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
	Too acid	0.50			Rock fragments	0.97
	Droughty	0.97				
3448B:						
Grettum	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Too acid	0.99
	Low content of organic matter	0.12				
	Too acid	0.61				
	Droughty	0.98				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	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
3448C:						
Grettum	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00			Slope	0.96
	Low content of organic matter	0.12			Too acid	0.99
	Too acid	0.61				
	Droughty	0.98				
3510B:						
Pomroy	Poor		Fair		Fair	
	Wind erosion	0.00	Depth to saturated zone	0.53	Too sandy	0.22
	Low content of organic matter	0.12			Depth to saturated zone	0.53
	Too sandy	0.22			Hard to reclaim (dense layer)	0.54
	Too acid	0.54			Rock fragments	0.97
	Droughty	0.95				
Fremstadt	Poor		Good		Fair	
	Wind erosion	0.00			Too sandy	0.47
	Too sandy	0.47			Rock fragments	0.72
	Too acid	0.54				
	Low content of organic matter	0.92				
Fremstadt, stony	Poor		Good		Fair	
	Wind erosion	0.00			Too sandy	0.47
	Too sandy	0.47			Rock fragments	0.72
	Too acid	0.54				
	Low content of organic matter	0.92				
3510C:						
Pomroy	Poor		Fair		Fair	
	Wind erosion	0.00	Depth to saturated zone	0.53	Too sandy	0.22
	Low content of organic matter	0.12			Depth to saturated zone	0.53
	Too sandy	0.22			Hard to reclaim (dense layer)	0.54
	Too acid	0.54			Slope	0.84
	Droughty	0.95			Rock fragments	0.97
Fremstadt	Poor		Good		Fair	
	Wind erosion	0.00			Too sandy	0.47
	Too sandy	0.47			Rock fragments	0.72
	Too acid	0.54			Slope	0.84
	Low content of organic matter	0.92				
Fremstadt, stony	Poor		Good		Fair	
	Wind erosion	0.00			Too sandy	0.47
	Too sandy	0.47			Rock fragments	0.72
	Too acid	0.54			Slope	0.84
	Low content of organic matter	0.92				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3511A:						
Bushville	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			Hard to reclaim (dense layer)	0.10
	Too sandy	0.38			Too sandy	0.38
	Droughty	0.77				
	Too acid	0.84				
3516A:						
Slimlake	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.89	Too sandy	0.00
	Low content of organic matter	0.12			Rock fragments	0.12
	Too acid	0.84			Depth to saturated zone	0.89
	Droughty	0.93				
3625A:						
Lino	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				
	Droughty	0.67				
	Too acid	0.74				
3626A:						
Crex	Poor		Fair		Poor	
	Too sandy	0.00	Depth to saturated zone	0.53	Too sandy	0.00
	Wind erosion	0.00			Depth to saturated zone	0.53
	Low content of organic matter	0.12			Too acid	0.76
	Too acid	0.20				
	Droughty	0.99				
3629B:						
Perida	Poor		Fair		Poor	
	Too sandy	0.00	Shrink-swell	0.99	Too sandy	0.00
	Wind erosion	0.00			Too acid	0.99
	Low content of organic matter	0.12				
	Too acid	0.61				
3636B:						
Plainbo	Poor		Poor		Poor	
	Too sandy	0.00	Depth to bedrock	0.00	Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.24
	Droughty	0.00			Depth to bedrock	0.54
	Low content of organic matter	0.12			Too acid	0.76
	Too acid	0.50				
	Depth to bedrock	0.54				

Table 19b.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material		Potential as source of roadfill		Potential as source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3636C:						
Plainbo----------	Poor		Poor		Poor	
	Too sandy	0.00	Depth to bedrock	0.00	Too sandy	0.00
	Wind erosion	0.00			Rock fragments	0.24
	Droughty	0.00			Depth to bedrock	0.54
	Low content of organic matter	0.12			Too acid	0.76
					Slope	0.96
	Too acid	0.50				
	Depth to bedrock	0.54				
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water----------	Not rated		Not rated		Not rated	

Table 20.--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 soil name	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
3A:						
Totagatic	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.81		
Bowstring	Very limited		Very limited		Very limited	
	Seepage	1.00	Content of organic matter	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Ponding	1.00		
Ausable	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.58		
12A:						
Makwa	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00	Content of large stones	0.11
			Content of large stones	0.74		
			Seepage	0.38		
22A:						
Comstock	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Piping	0.96	Slow refill	0.28
27A:						
Scott Lake	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
			Seepage	0.50	Depth to water	0.06
28B:						
Haugen, very stony	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.04		
Haugen	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.04		
Rosholt, very stony	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00

Table 20.--Water Management--Continued

Map symbol and soil name	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
28B:						
Rosholt----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
28C:						
Haugen, very stony--	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.04		
Haugen----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.04		
Rosholt, very stony	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
Rosholt----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
38A:						
Rosholt----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
38B:						
Rosholt----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
38C:						
Rosholt----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
38D:						
Rosholt----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.04				
42D:						
Amery----------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Seepage	0.03	No ground water	1.00
	Slope	0.04				
43B:						
Antigo----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
43C:						
Antigo----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.01				
63A:						
Crystal Lake--------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Cutbanks cave	1.00
			Depth to saturated zone	0.99	Slow refill	0.96
					Depth to water	0.24

Table 20.--Water Management--Continued

Map symbol and soil name	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
63B:						
Crystal Lake	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Cutbanks cave	1.00
			Depth to saturated zone	0.99	Slow refill	0.96
					Depth to water	0.24
63C:						
Crystal Lake	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Cutbanks cave	1.00
			Depth to saturated zone	0.99	Slow refill	0.96
					Depth to water	0.54
64A:						
Totagatic	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.81		
Winterfield	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.64		
69C:						
Keweenaw	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.11	No ground water	1.00
Sayner	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.72	No ground water	1.00
Vilas	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.86	No ground water	1.00
69E:						
Keweenaw	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.11	No ground water	1.00
	Slope	0.50				
Sayner	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.72	No ground water	1.00
	Slope	0.50				
Vilas	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.86	No ground water	1.00
	Slope	0.50				
82B:						
Cutaway	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
					Slow refill	0.28
					Depth to water	0.01
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.99	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.88	Depth to water	0.01

Table 20.--Water Management--Continued

Map symbol and soil name	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
82C:						
Cutaway	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
					Slow refill	0.28
					Depth to water	0.01
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.99	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.88	Depth to water	0.01
83A:						
Smestad	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Hard to pack	0.36		
			Seepage	0.06		
85B:						
Taylor	Not limited		Very limited		Very limited	
			Depth to saturated zone	1.00	No ground water	1.00
			Hard to pack	0.99		
85C:						
Taylor	Not limited		Very limited		Very limited	
			Depth to saturated zone	1.00	No ground water	1.00
			Hard to pack	0.99		
86A:						
Indus	Not limited		Very limited		Very limited	
			Depth to saturated zone	1.00	No ground water	1.00
			Hard to pack	1.00		
			Ponding	1.00		
Alango	Not limited		Very limited		Very limited	
			Depth to saturated zone	1.00	No ground water	1.00
			Hard to pack	1.00		
89A:						
Wildwood	Not limited		Very limited		Somewhat limited	
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Ponding	1.00		
			Hard to pack	0.99		
96B:						
Karlsborg	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.72		
96C:						
Karlsborg	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.72		

Table 20.--Water Management--Continued

Map symbol and soil name	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
96D:						
Karlsborg	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
	Slope	0.04	Seepage	0.72		
100B:						
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
100C:						
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
100D:						
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.15				
120B:						
Kost	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.82	No ground water	1.00
127D:						
Amery	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Seepage	0.03	No ground water	1.00
	Slope	0.04				
Rosholt	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.04				
127E:						
Amery	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Seepage	0.03	No ground water	1.00
	Slope	0.64				
Rosholt	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.64				
151A:						
Bluffton	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
			Piping	0.90		
152A:						
Alstad	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
			Piping	0.85	Cutbanks cave	0.10
			Seepage	0.01		
154E:						
Cushing	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.78	No ground water	1.00
	Slope	0.36	Seepage	0.01		

Table 20.--Water Management--Continued

Map symbol and soil name	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
156B:						
Magnor, very stony--	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	No ground water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.04		
Magnor----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	No ground water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.04		
157B:						
Freeon, very stony--	Somewhat limited		Very limited		Very limited	
	Seepage	0.02	Depth to saturated zone	1.00	No ground water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.04		
Freeon----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.02	Depth to saturated zone	1.00	No ground water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.04		
157C:						
Freeon, very stony--	Somewhat limited		Very limited		Very limited	
	Seepage	0.02	Depth to saturated zone	1.00	No ground water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.04		
Freeon----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.02	Depth to saturated zone	1.00	No ground water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.04		
160A:						
Oesterle----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.50		
165B:						
Elderon----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.52	No ground water	1.00
			Content of large stones	0.14		

Table 20.--Water Management--Continued

Map symbol and soil name	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
185B:						
Tradelake	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.72		
Taylor	Not limited		Very limited		Very limited	
			Depth to saturated zone	1.00	No ground water	1.00
			Hard to pack	0.99		
185C:						
Tradelake	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.72		
Taylor	Not limited		Very limited		Very limited	
			Depth to saturated zone	1.00	No ground water	1.00
			Hard to pack	0.97		
185D:						
Tradelake	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
	Slope	0.09	Seepage	0.72		
Taylor	Somewhat limited		Very limited		Very limited	
	Slope	0.09	Depth to saturated zone	1.00	No ground water	1.00
			Hard to pack	0.97		
185E:						
Tradelake	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
	Slope	0.50	Seepage	0.72		
Taylor	Somewhat limited		Very limited		Very limited	
	Slope	0.50	Depth to saturated zone	1.00	No ground water	1.00
			Hard to pack	0.97		
189A:						
Siren	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Hard to pack	0.78		
193A:						
Minocqua	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.50		

Table 20.--Water Management--Continued

Map symbol and soil name	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
337A:						
Plover	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Cutbanks cave	1.00
					Slow refill	0.28
			Piping	1.00		
368B:						
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
368C:						
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
368D:						
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.12				
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.12				
368E:						
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.50				
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.50				
380B:						
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
Rosholt	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
380C:						
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
Rosholt	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
380D:						
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.15				
Rosholt	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.15				

Table 20.--Water Management--Continued

Map symbol and soil name	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
383B:						
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
383C:						
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
383D:						
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.15				
392C:						
Rockmarsh	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
	Slope	0.01	Content of large stones	0.88		
			Seepage	0.12		
			Thin layer	0.11		
Dairyland	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
	Slope	0.01	Content of large stones	0.60		
			Seepage	0.32		
			Thin layer	0.11		
Makwa	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.65	Content of large stones	0.11
			Content of large stones	0.11		
396B:						
Friendship	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.86	Cutbanks cave	1.00
					Depth to water	0.96
Wurtsmith	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
			Seepage	0.82	Depth to water	0.01
Grayling	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
397A:						
Perchlake	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.64		
399B:						
Grayling	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00

Table 20.--Water Management--Continued

Map symbol and soil name	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
399C:						
Grayling	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
399D:						
Grayling	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.15				
406A:						
Loxley	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		
407A:						
Seelyeville	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		
Markey	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.64		
410A:						
Seelyeville	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		
Cathro	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
			Ponding	1.00		
			Seepage	0.03		
419A:						
Seelyeville	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		

Table 20.--Water Management--Continued

Map symbol and soil name	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
419A:						
Cathro	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.03	Somewhat limited Cutbanks cave	0.10
Markey	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.64	Very limited Cutbanks cave	1.00
421A:						
Dora	Very limited Seepage	1.00	Very limited Content of organic matter Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited No ground water	1.00
Markey	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.64	Very limited Cutbanks cave	1.00
Seelyeville	Very limited Seepage	1.00	Very limited Content of organic matter Depth to saturated zone Piping Ponding	1.00 1.00 1.00 1.00	Somewhat limited Cutbanks cave	0.10
422A:						
Seelyeville	Very limited Seepage	1.00	Very limited Content of organic matter Depth to saturated zone Piping Ponding	1.00 1.00 1.00 1.00	Somewhat limited Cutbanks cave	0.10
Cathro	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.03	Somewhat limited Cutbanks cave	0.10
Rondeau	Very limited Seepage	1.00	Very limited Content of organic matter Depth to saturated zone Ponding	1.00 1.00 1.00	Somewhat limited Cutbanks cave	0.10
426B:						
Emmert	Very limited Seepage	1.00	Somewhat limited Seepage	0.86	Very limited No ground water	1.00

Table 20.--Water Management--Continued

Map symbol and soil name	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
426B:						
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
426C:						
Emmert	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.86	No ground water	1.00
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
426D:						
Emmert	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.86	No ground water	1.00
	Slope	0.15				
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.15				
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.15				
430A:						
Freya	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.20		
439B:						
Graycalm	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
439C:						
Graycalm	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
439D:						
Graycalm	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.15				
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.15				

Table 20.--Water Management--Continued

Map symbol and soil name	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
442C:						
Haugen	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.04		
Greenwood	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		
443D:						
Amery	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Seepage	0.03	No ground water	1.00
	Slope	0.28				
Greenwood	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		
459A:						
Loxley	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		
Daisybay	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
			Ponding	1.00		
Dawson	Very limited		Very limited		Very limited	
	Seepage	1.00	Content of organic matter	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Ponding	1.00		
			Seepage	0.64		
461A:						
Bowstring	Very limited		Very limited		Very limited	
	Seepage	1.00	Content of organic matter	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Ponding	1.00		

Table 20.--Water Management--Continued

Map symbol and soil name	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
465A:						
Newson	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.82		
Meehan	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.82		
469E:						
Bigisland	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Content of large stones	0.61	No ground water	1.00
	Slope	0.55	Seepage	0.25		
			Thin layer	0.11		
Milaca	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
	Slope	0.55	Thin layer	0.11		
			Seepage	0.03		
471B:						
Dairyland	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
			Content of large stones	0.60		
			Seepage	0.32		
			Thin layer	0.11		
Emmert	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.86	No ground water	1.00
471C:						
Dairyland	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
	Slope	0.01	Content of large stones	0.60		
			Seepage	0.32		
			Thin layer	0.11		
Emmert	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.86	No ground water	1.00
	Slope	0.01				
472A:						
Rockmarsh	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Content of large stones	0.88		
			Seepage	0.12		
			Thin layer	0.11		

Table 20.--Water Management--Continued

Map symbol and soil name	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
472A:						
Clemens	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.25	Content of large stones	0.23
			Content of large stones	0.23		
473A:						
Dairyland	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
			Content of large stones	0.60		
			Seepage	0.32		
			Thin layer	0.11		
Skog	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.86	Cutbanks cave	1.00
			Depth to saturated zone	0.86	Depth to water	0.06
484A:						
Greenwood	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		
Beseman	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		
			Ponding	1.00		
485C:						
Lupton	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		
Tawas	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.20		
495B:						
Karlsborg	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.72		
Grettum	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.58	Cutbanks cave	1.00
					Depth to water	0.96

Table 20.--Water Management--Continued

Map symbol and soil name	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
495B:						
Perida	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.72	No ground water	1.00
			Depth to saturated zone	0.09		
495C:						
Karlsborg	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.72		
Grettum	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.58	Cutbanks cave	1.00
					Depth to water	0.96
Perida	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.72	No ground water	1.00
			Depth to saturated zone	0.09		
495D:						
Karlsborg	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
	Slope	0.15				
			Seepage	0.72		
Grettum	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.58	Cutbanks cave	1.00
	Slope	0.15			Depth to water	0.96
Perida	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.72	No ground water	1.00
	Slope	0.15	Depth to saturated zone	0.09		
496B:						
Karlsborg	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.72		
496C:						
Karlsborg	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.72		
496D:						
Karlsborg	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
	Slope	0.15				
			Seepage	0.72		
497A:						
Meenon	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.72		

Table 20.--Water Management--Continued

Map symbol and soil name	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
521A:						
Dody	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Ponding	1.00		
			Seepage	0.13		
523A:						
Nokasippi	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Thin layer	0.26		
			Seepage	0.14		
529B:						
Perida	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.72	No ground water	1.00
			Depth to saturated zone	0.09		
531A:						
Stengel	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Thin layer	1.00		
			Seepage	0.82		
542B:						
Haugen, very stony	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.04		
Haugen	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.04		
542C:						
Haugen, very stony	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.04		
Haugen	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.04		
544F:						
Menahga	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.82				
Mahtomedi	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.64	No ground water	1.00
	Slope	0.82				

Table 20.--Water Management--Continued

Map symbol and soil name	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
553B:						
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.99	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.88	Depth to water	0.01
553C:						
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.99	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.88	Depth to water	0.01
553D:						
Branstad	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.99	Slow refill	0.28
	Slope	0.04			Cutbanks cave	0.10
			Piping	0.88	Depth to water	0.01
555A:						
Fordum	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.53		
557B:						
Shawano	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.36	No ground water	1.00
557C:						
Shawano	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.36	No ground water	1.00
557D:						
Shawano	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.36	No ground water	1.00
	Slope	0.15				
586A:						
Chelmo	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Ponding	1.00		
			Seepage	0.86		
600A:						
Haplosaprists	Not rated		Not rated		Not rated	
Psammaquents	Not rated		Not rated		Not rated	
615B:						
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
615C:						
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00

Table 20.--Water Management--Continued

Map symbol and soil name	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
615D:						
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.15				
620C:						
Lundeen	Somewhat limited		Very limited		Very limited	
	Depth to bedrock	0.86	Piping	1.00	No ground water	1.00
	Seepage	0.72	Thin layer	0.86		
Haustrup	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Piping	1.00	No ground water	1.00
			Thin layer	1.00		
Rock outcrop	Not rated		Not rated		Not rated	
621A:						
Bjorkland	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.30		
623A:						
Capitola	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	No ground water	1.00
			Piping	1.00		
			Ponding	1.00		
			Thin layer	0.86		
			Seepage	0.04		
624A:						
Ossmer	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.50		
631A:						
Giese	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	No ground water	1.00
			Ponding	1.00		
			Seepage	0.02		
632A:						
Aftad	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Cutbanks cave	1.00
			Depth to saturated zone	0.99	Slow refill	0.28
					Depth to water	0.24
632B:						
Aftad	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Cutbanks cave	1.00
			Depth to saturated zone	0.99	Slow refill	0.28
					Depth to water	0.24

Table 20.--Water Management--Continued

Map symbol and soil name	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
632C:						
Aftad	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Cutbanks cave	1.00
			Depth to saturated zone	0.99	Slow refill	0.96
					Depth to water	0.54
634C:						
Drylanding	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Thin layer	1.00	No ground water	1.00
			Content of large stones	0.39		
Beartree	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to saturated zone	1.00	Depth to hard bedrock	1.00
			Thin layer	1.00	Content of large stones	1.00
			Content of large stones	1.00	Cutbanks cave	0.10
			Ponding	1.00		
			Piping	0.98		
Rock outcrop	Not rated		Not rated		Not rated	
635C:						
Drylanding	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Thin layer	1.00	No ground water	1.00
			Content of large stones	0.39		
Beartree	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to saturated zone	1.00	Depth to hard bedrock	1.00
			Thin layer	1.00	Content of large stones	1.00
			Content of large stones	1.00	Cutbanks cave	0.10
			Ponding	1.00		
			Piping	0.98		
Rock outcrop	Not rated		Not rated		Not rated	
648B:						
Sconsin	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Piping	1.00		
			Thin layer	0.88		
			Seepage	0.01		
669D:						
Fremstadt, stony	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.07	No ground water	1.00
	Slope	0.18				
Pomroy	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
	Slope	0.18				
			Thin layer	0.11		
			Seepage	0.08		

Table 20.--Water Management--Continued

Map symbol and soil name	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
671B:						
Spoonerhill, stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.11		
Spoonerhill---------	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.11		
706A:						
Winterfield---------	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.64		
Totagatic----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.81		
715A:						
Mora----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	No ground water	1.00
			Piping	1.00		
			Thin layer	0.11		
			Seepage	0.03		
717B:						
Milaca----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	No ground water	1.00
			Depth to saturated zone	0.99		
			Thin layer	0.11		
			Seepage	0.03		
717C:						
Milaca----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	No ground water	1.00
			Depth to saturated zone	0.99		
			Thin layer	0.11		
			Seepage	0.03		
720F:						
Haustrup----------	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Piping	1.00	No ground water	1.00
	Slope	0.08	Thin layer	1.00		
Lundeen----------	Somewhat limited		Very limited		Very limited	
	Depth to bedrock	0.86	Piping	1.00	No ground water	1.00
	Seepage	0.72	Thin layer	0.86		
	Slope	0.08				
Rock outcrop--------	Not rated		Not rated		Not rated	

Table 20.--Water Management--Continued

Map symbol and soil name	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
726B:						
Sissabagama---------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.86	Cutbanks cave	1.00
					Depth to water	0.24
			Seepage	0.36		
742B:						
Milaca----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Thin layer	0.11		
			Seepage	0.03		
742C:						
Milaca----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
			Thin layer	0.11		
			Seepage	0.03		
742D:						
Milaca----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	0.99	No ground water	1.00
	Slope	0.04				
			Thin layer	0.11		
			Seepage	0.03		
755A:						
Moppet----------	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	0.42		
Fordum----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.53		
771A:						
Lenroot----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
					Depth to water	0.01
			Seepage	0.54		
812B:						
Mora----------	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	No ground water	1.00
			Thin layer	0.11		
			Seepage	0.03		
825A:						
Meehan----------	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.82		

Table 20.--Water Management--Continued

Map symbol and soil name	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
896A:						
Wurtsmith	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
					Depth to water	0.01
			Seepage	0.82		
980A:						
Soderbeck	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
	Depth to bedrock	0.10	Seepage	0.58		
			Content of large stones	0.45		
			Thin layer	0.11		
1070C:						
Fremstadt	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.07	No ground water	1.00
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
1070D:						
Fremstadt	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.07	No ground water	1.00
	Slope	0.21				
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
	Slope	0.15				
1080B:						
Spoonerhill	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.10		
Spoonerhill, stony	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
			Seepage	0.11		
Cress	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.50	No ground water	1.00
2002:						
Udorthents, earthen dams	Not rated		Not rated		Not rated	
2015:						
Pits	Not rated		Not rated		Not rated	
2050:						
Landfill	Not rated		Not rated		Not rated	
3011A:						
Barronett	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Cutbanks cave	1.00
					Slow refill	0.28
			Piping	1.00		
			Ponding	1.00		

Table 20.--Water Management--Continued

Map symbol and soil name	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
3082E:						
Braham	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.10	No ground water	1.00
	Slope	0.12				
Shawano	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.36	No ground water	1.00
	Slope	0.32				
3114A:						
Saprists	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Content of organic matter	1.00	Cutbanks cave	0.10
			Ponding	1.00		
			Depth to saturated zone	1.00		
			Piping	1.00		
Aquents	Very limited		Very limited		Very limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Seepage	0.82		
Aquepts	Very limited		Very limited		Very limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Seepage	0.50		
3125A:						
Meehan	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.82		
3126A:						
Wurtsmith	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
					Depth to water	0.01
			Seepage	0.82		
3312B:						
Glendenning, very stony	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.04		
Glendenning	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	No ground water	1.00
			Seepage	0.04		
3336A:						
Fenander	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Cutbanks cave	1.00
					Slow refill	0.28
			Ponding	1.00		

Table 20.--Water Management--Continued

Map symbol and soil name	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
3403A:						
Loxley	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		
Beseman	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		
Dawson	Very limited		Very limited		Very limited	
	Seepage	1.00	Content of organic matter	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Ponding	1.00		
			Seepage	0.64		
3429B:						
Lara	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.20		
3429C:						
Lara	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.20		
3446A:						
Newson	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.82		
3448B:						
Grettum	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.58	Cutbanks cave	1.00
					Depth to water	0.96
3448C:						
Grettum	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.58	Cutbanks cave	1.00
					Depth to water	0.96
3510B:						
Pomroy	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
			Thin layer	0.11		
			Seepage	0.08		

Table 20.--Water Management--Continued

Map symbol and soil name	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
3510B:						
Fremstadt	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.07	No ground water	1.00
Fremstadt, stony	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.07	No ground water	1.00
3510C:						
Pomroy	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	No ground water	1.00
			Thin layer	0.11		
			Seepage	0.08		
Fremstadt	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.07	No ground water	1.00
Fremstadt, stony	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.07	No ground water	1.00
3511A:						
Bushville	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	No ground water	1.00
			Thin layer	0.11		
			Seepage	0.07		
3516A:						
Slimlake	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	0.79		
3625A:						
Lino	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.30		
3626A:						
Crex	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
					Depth to water	0.01
			Seepage	0.88		
3629B:						
Perida	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.72	No ground water	1.00
			Depth to saturated zone	0.09		
3636B:						
Plainbo	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Thin layer	0.86	No ground water	1.00
	Depth to bedrock	0.11	Seepage	0.51		

Table 20.--Water Management--Continued

Map symbol and soil name	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
3636C:						
Plainbo	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Thin layer	0.86	No ground water	1.00
	Depth to bedrock	0.11	Seepage	0.51		
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water	Not rated		Not rated		Not rated	

Table 21a.--Agricultural Waste 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 soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:				
Totagatic	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
Bowstring	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Low adsorption	1.00	Low adsorption	1.00
	Ponding	1.00	Ponding	1.00
Ausable	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
12A:				
Makwa	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Restricted permeability	1.00	Low adsorption	1.00
	Large stones on the surface	1.00	Restricted permeability	1.00
	Ponding	1.00	Large stones on the surface	1.00
22A:				
Comstock	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.41	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
27A:				
Scott Lake----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	0.86
	Too acid	0.08	Too acid	0.31
	Droughty	0.05	Droughty	0.05
28B:				
Haugen, very stony--	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.89	Too acid	0.91
	Too stony	0.50	Restricted permeability	0.78
	Too acid	0.32		
Haugen----------	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.89	Too acid	0.91
	Too acid	0.32	Restricted permeability	0.78
Rosholt, very stony	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Droughty	0.40
	Too stony	0.50	Too acid	0.31
	Droughty	0.40		
	Too acid	0.08		
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Droughty	0.33
	Droughty	0.33	Too acid	0.31
	Too acid	0.08		
28C:				
Haugen, very stony--	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.89	Too acid	0.91
	Too stony	0.50	Restricted permeability	0.78
	Too acid	0.32	Slope	0.04
	Slope	0.04		
Haugen----------	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.89	Too acid	0.91
	Too acid	0.32	Restricted permeability	0.78
	Slope	0.04	Slope	0.04

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
28C:				
Rosholt, very stony	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Droughty	0.40
	Too stony	0.50	Too acid	0.31
	Droughty	0.40	Slope	0.04
	Too acid	0.08		
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Droughty	0.33
	Droughty	0.33	Too acid	0.31
	Too acid	0.08	Slope	0.04
	Slope	0.04		
38A:				
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Droughty	0.33
	Droughty	0.33	Too acid	0.31
	Too acid	0.08		
38B:				
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Droughty	0.33
	Droughty	0.33	Too acid	0.31
	Too acid	0.08		
38C:				
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Droughty	0.33
	Droughty	0.33	Too acid	0.31
	Too acid	0.08	Slope	0.04
	Slope	0.04		
38D:				
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Slope	1.00
	Slope	1.00	Droughty	0.33
	Droughty	0.33	Too acid	0.31
	Too acid	0.08		
42D:				
Amery----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Too stony	0.50	Too acid	0.77
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.22		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
43B:				
Antigo	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.08	Too acid	0.31
43C:				
Antigo	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	0.37	Slope	0.37
	Too acid	0.08	Too acid	0.31
63A:				
Crystal Lake	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.41	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31
63B:				
Crystal Lake	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.41	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31
63C:				
Crystal Lake	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.41	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31
	Slope	0.04	Slope	0.04
64A:				
Totagatic	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
Winterfield	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Leaching	0.90	Droughty	0.52
	Droughty	0.52		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
69C:				
Keweenaw	Somewhat limited		Somewhat limited	
	Too acid	0.22	Too acid	0.77
	Slope	0.16	Slope	0.16
	Filtering capacity	0.01	Filtering capacity	0.01
Sayner	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.99	Droughty	0.99
	Leaching	0.45	Too acid	0.77
	Too acid	0.22	Slope	0.16
	Slope	0.16		
Vilas	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Leaching	0.45	Too acid	0.31
	Slope	0.16	Slope	0.16
	Too acid	0.08	Droughty	0.04
	Droughty	0.04		
69E:				
Keweenaw	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Too acid	0.22	Too acid	0.77
	Filtering capacity	0.01	Filtering capacity	0.01
Sayner	Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00
	Droughty	0.99	Droughty	0.99
	Leaching	0.45	Too acid	0.77
	Too acid	0.22		
Vilas	Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00
	Leaching	0.45	Too acid	0.31
	Too acid	0.08	Droughty	0.04
	Droughty	0.04		
82B:				
Cutaway	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.01	Too acid	0.03
Branstad	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
82C:				
Cutaway	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Slope	0.04	Slope	0.04
	Too acid	0.01	Too acid	0.03
Branstad	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Slope	0.04	Slope	0.04
83A:				
Smestad	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.03	Too acid	0.14
85B:				
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.03	Too acid	0.14
85C:				
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	0.04	Too acid	0.14
	Too acid	0.03	Slope	0.04
86A:				
Indus	Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Too acid	0.02	Too acid	0.07
Alango	Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Runoff	0.40	Too acid	0.07
	Too acid	0.02		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
89A:				
Wildwood	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Low adsorption	1.00
	Ponding	1.00	Restricted permeability	1.00
	Runoff	0.40	Ponding	1.00
	Too acid	0.11	Too acid	0.42
96B:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Too acid	0.22	Too acid	0.77
96C:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Too acid	0.22	Too acid	0.77
	Slope	0.04	Slope	0.04
96D:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Slope	1.00	Slope	1.00
	Too acid	0.22	Too acid	0.77
100B:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.77	Too acid	0.99
	Too acid	0.50	Droughty	0.77
	Leaching	0.45		
100C:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.50	Low adsorption	1.00
	Leaching	0.45	Too acid	0.99
	Droughty	0.40	Droughty	0.40
	Slope	0.04	Slope	0.04

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
100D:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Low adsorption	1.00
	Too acid	0.50	Slope	1.00
	Leaching	0.45	Too acid	0.99
	Droughty	0.40	Droughty	0.40
120B:				
Kost	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.64	Droughty	0.64
	Leaching	0.45	Too acid	0.07
	Too acid	0.02		
127D:				
Amery	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Too stony	0.50	Too acid	0.77
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.22		
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Slope	1.00
	Slope	1.00	Droughty	0.40
	Too stony	0.50	Too acid	0.31
	Droughty	0.40		
127E:				
Amery	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Too stony	0.50	Too acid	0.77
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.22		
Rosholt	Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00
	Dense layer	1.00	Droughty	0.40
	Too stony	0.50	Too acid	0.31
	Droughty	0.40		
151A:				
Bluffton	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Leaching	0.50		
152A:				
Alstad	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.02	Too acid	0.07

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
154E:				
Cushing	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.02	Too acid	0.07
156B:				
Magnor, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Dense layer	1.00	Too acid	0.85
	Restricted permeability	0.74	Restricted permeability	0.60
	Too stony	0.50		
	Too acid	0.27		
Magnor	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Dense layer	1.00	Too acid	0.85
	Restricted permeability	0.74	Restricted permeability	0.60
	Too acid	0.27		
157B:				
Freeon, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Dense layer	1.00	Too acid	0.77
	Restricted permeability	0.74	Restricted permeability	0.60
	Too stony	0.50		
	Too acid	0.22		
Freeon	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Dense layer	1.00	Too acid	0.85
	Restricted permeability	0.74	Restricted permeability	0.60
	Too acid	0.27		
157C:				
Freeon, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Dense layer	1.00	Too acid	0.77
	Restricted permeability	0.74	Restricted permeability	0.60
	Too stony	0.50	Slope	0.04
	Too acid	0.22		
Freeon	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Dense layer	1.00	Too acid	0.85
	Restricted permeability	0.74	Restricted permeability	0.60
	Too acid	0.27	Slope	0.04
	Slope	0.04		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
160A:				
Oesterle----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.22	Too acid	0.77
	Droughty	0.09	Droughty	0.09
165B:				
Elderon----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.99	Droughty	0.99
	Too acid	0.01	Too acid	0.03
185B:				
Tradelake----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Too acid	0.11	Too acid	0.42
Taylor----------	Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.03	Too acid	0.14
185C:				
Tradelake----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Too acid	0.11	Too acid	0.42
	Slope	0.04	Slope	0.04
Taylor----------	Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	0.04	Too acid	0.14
	Too acid	0.03	Slope	0.04

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
185D:				
Tradelake	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.11	Too acid	0.42
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	1.00	Slope	1.00
	Too acid	0.03	Too acid	0.14
185E:				
Tradelake	Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.11	Too acid	0.42
Taylor	Very limited		Very limited	
	Slope	1.00	Restricted permeability	1.00
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Too acid	0.03	Too acid	0.14
189A:				
Siren	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.74	Too acid	1.00
	Too acid	0.62	Restricted permeability	0.60
	Runoff	0.40		
193A:				
Minocqua	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.70	Ponding	1.00
	Too acid	0.02	Too acid	0.07

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
337A:				
Plover	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.89	Restricted permeability	0.78
	Too acid	0.08	Too acid	0.31
368B:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
368C:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11	Slope	0.04
	Slope	0.04		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08	Slope	0.04
	Slope	0.04		
368D:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
368E:				
Mahtomedi	Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11		
Cress	Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
380B:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Droughty	0.33
	Droughty	0.33	Too acid	0.31
	Too acid	0.08		
380C:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08	Slope	0.04
	Slope	0.04		
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Droughty	0.33
	Droughty	0.33	Too acid	0.31
	Too acid	0.08	Slope	0.04
	Slope	0.04		
380D:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
380D:				
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Dense layer	1.00	Slope	1.00
	Slope	1.00	Droughty	0.33
	Droughty	0.33	Too acid	0.31
	Too acid	0.08		
383B:				
Mahtomedi----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11		
383C:				
Mahtomedi----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11	Slope	0.04
	Slope	0.04		
383D:				
Mahtomedi----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11		
392C:				
Rockmarsh----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Cobble content	1.00	Low adsorption	1.00
	Too stony	0.50	Cobble content	1.00
	Runoff	0.40	Too acid	0.91
	Slope	0.37	Slope	0.37
Dairyland----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Low adsorption	1.00
	Droughty	0.91	Depth to saturated zone	0.99
	Too stony	0.50	Droughty	0.91
	Slope	0.37	Slope	0.37

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
392C:				
Makwa	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Low adsorption	1.00
	Large stones on the surface	1.00	Restricted permeability	1.00
	Too stony	0.50	Large stones on the surface	1.00
	Runoff	0.40	Too acid	0.77
396B:				
Friendship	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.90	Droughty	0.90
	Leaching	0.45	Too acid	0.21
	Too acid	0.05		
Wurtsmith	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Too acid	1.00
	Droughty	0.87	Depth to saturated zone	0.99
	Too acid	0.78	Droughty	0.87
	Leaching	0.45		
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Too acid	1.00
	Too acid	0.78	Droughty	1.00
	Leaching	0.45		
397A:				
Perchlake	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.25	Too acid	0.77
	Too acid	0.22	Droughty	0.25
399B:				
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Too acid	1.00
	Too acid	0.78	Droughty	1.00
	Leaching	0.45		
399C:				
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Too acid	1.00
	Too acid	0.78	Droughty	1.00
	Leaching	0.45	Slope	0.04
	Slope	0.04		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
399D:				
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Too acid	1.00
	Droughty	1.00	Slope	1.00
	Too acid	0.78	Droughty	1.00
	Leaching	0.45		
406A:				
Loxley	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00
407A:				
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
	Too acid	0.08	Too acid	0.31
Markey	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
410A:				
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
	Too acid	0.08	Too acid	0.31
Cathro	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
	Too acid	0.02	Too acid	0.07
419A:				
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
	Too acid	0.08	Too acid	0.31

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
419A:				
Cathro	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
	Too acid	0.02	Too acid	0.07
Markey	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
421A:				
Dora	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Low adsorption	1.00
	Ponding	1.00	Restricted permeability	1.00
	Leaching	0.90	Ponding	1.00
	Too acid	0.02	Too acid	0.07
Markey	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
	Too acid	0.08	Too acid	0.31
422A:				
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
	Too acid	0.08	Too acid	0.31
Cathro	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Ponding	1.00
	Too acid	0.02	Too acid	0.07

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
422A:				
Rondeau	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Low adsorption	1.00
	Ponding	1.00	Restricted permeability	1.00
	Leaching	0.90	Ponding	1.00
426B:				
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.03
	Too acid	0.01		
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.50	Low adsorption	1.00
	Leaching	0.45	Too acid	0.99
	Droughty	0.39	Droughty	0.39
426C:				
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Slope	0.04
	Slope	0.04	Too acid	0.03
	Too acid	0.01		
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11	Slope	0.04
	Slope	0.04		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.50	Low adsorption	1.00
	Leaching	0.45	Too acid	0.99
	Droughty	0.39	Droughty	0.39
	Slope	0.04	Slope	0.04

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
426D:				
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Slope	1.00	Slope	1.00
	Leaching	0.45	Too acid	0.03
	Too acid	0.01		
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Low adsorption	1.00
	Too acid	0.50	Slope	1.00
	Leaching	0.45	Too acid	0.99
	Droughty	0.39	Droughty	0.39
430A:				
Freya	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Runoff	0.40	Too acid	0.03
	Too acid	0.01		
439B:				
Graycalm	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.50	Too acid	0.99
	Leaching	0.45	Droughty	0.25
	Droughty	0.25		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.50	Low adsorption	1.00
	Leaching	0.45	Too acid	0.99
	Droughty	0.39	Droughty	0.39
439C:				
Graycalm	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.50	Too acid	0.99
	Leaching	0.45	Droughty	0.25
	Droughty	0.25	Slope	0.04
	Slope	0.04		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
439C:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.50	Low adsorption	1.00
	Leaching	0.45	Too acid	0.99
	Droughty	0.39	Droughty	0.39
	Slope	0.04	Slope	0.04
439D:				
Graycalm	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Too acid	0.50	Too acid	0.99
	Leaching	0.45	Droughty	0.25
	Droughty	0.25		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Low adsorption	1.00
	Too acid	0.50	Slope	1.00
	Leaching	0.45	Too acid	0.99
	Droughty	0.39	Droughty	0.39
442C:				
Haugen	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.89	Too acid	0.91
	Too stony	0.50	Restricted permeability	0.78
	Too acid	0.32		
Greenwood	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00
443D:				
Amery	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Too stony	0.50	Too acid	0.31
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.08		
Greenwood	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
459A:				
Loxley	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00
Daisybay	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Low adsorption	1.00
	Ponding	1.00	Too acid	1.00
	Too acid	0.94	Restricted permeability	1.00
Dawson	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00
461A:				
Bowstring	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Low adsorption	1.00	Low adsorption	1.00
	Ponding	1.00	Ponding	1.00
465A:				
Newson	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.90	Too acid	1.00
	Too acid	0.62	Ponding	1.00
Meehan	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.97	Droughty	0.97
	Too acid	0.27	Too acid	0.85

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
469E:				
Bigisland----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Droughty	1.00	Droughty	1.00
	Cobble content	0.95	Cobble content	0.95
	Too stony	0.50	Large stones on the surface	0.08
	Large stones on the surface	0.08	Too acid	0.03
Milaca----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too stony	0.50	Too acid	0.42
	Too acid	0.11		
471B:				
Dairyland----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Low adsorption	1.00
	Droughty	0.91	Depth to saturated zone	0.99
	Too stony	0.50	Droughty	0.91
Emmert----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Too stony	0.50	Too acid	0.03
	Leaching	0.45		
	Too acid	0.01		
471C:				
Dairyland----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Low adsorption	1.00
	Droughty	0.91	Depth to saturated zone	0.99
	Too stony	0.50	Droughty	0.91
	Slope	0.37	Slope	0.37
Emmert----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Droughty	1.00
	Too stony	0.50	Slope	0.37
	Leaching	0.45	Too acid	0.03
	Slope	0.37		
472A:				
Rockmarsh----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Cobble content	1.00	Low adsorption	1.00
	Too stony	0.50	Cobble content	1.00
	Runoff	0.40	Too acid	0.91

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
472A:				
Clemens	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Too stony	0.50	Low adsorption	1.00
	Runoff	0.40	Too acid	0.42
473A:				
Dairyland	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Low adsorption	1.00
	Droughty	0.91	Depth to saturated zone	0.99
	Too stony	0.50	Droughty	0.91
Skog	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.99	Low adsorption	1.00
	Depth to saturated zone	0.86	Droughty	0.99
	Too stony	0.50	Depth to saturated zone	0.86
	Too acid	0.01	Flooding	0.40
484A:				
Greenwood	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00
Beseman	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00
	Restricted permeability	0.41	Restricted permeability	0.31
485C:				
Lupton	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Runoff	0.40	Low adsorption	1.00
Tawas	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Runoff	0.40	Ponding	1.00

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
495B:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Runoff	0.40	Too acid	0.77
	Too acid	0.22		
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Leaching	0.45	Too acid	0.85
	Too acid	0.27	Droughty	0.02
	Droughty	0.02		
Perida	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Too acid	0.27	Too acid	0.85
	Depth to saturated zone	0.09	Depth to saturated zone	0.09
495C:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Runoff	0.40	Too acid	0.77
	Too acid	0.22	Slope	0.04
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Leaching	0.45	Too acid	0.85
	Too acid	0.27	Slope	0.04
	Slope	0.04	Droughty	0.02
	Droughty	0.02		
Perida	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Too acid	0.27	Too acid	0.85
	Depth to saturated zone	0.09	Depth to saturated zone	0.09
	Slope	0.04	Slope	0.04

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
495D:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Slope	1.00	Slope	1.00
	Runoff	0.40	Too acid	0.77
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Leaching	0.45	Too acid	0.85
	Too acid	0.27	Droughty	0.02
	Droughty	0.02		
Perida	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Slope	1.00	Slope	1.00
	Too acid	0.27	Too acid	0.85
	Depth to saturated zone	0.09	Depth to saturated zone	0.09
496B:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Too acid	0.22	Too acid	0.77
496C:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Too acid	0.22	Too acid	0.77
	Slope	0.04	Slope	0.04
496D:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Slope	1.00	Slope	1.00
	Too acid	0.22	Too acid	0.77

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
497A:				
Meenon	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.08	Too acid	0.31
	Droughty	0.03	Droughty	0.03
521A:				
Dody	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Low adsorption	1.00
	Ponding	1.00	Restricted permeability	1.00
	Leaching	0.50	Ponding	1.00
523A:				
Nokasippi	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.70	Ponding	1.00
	Too acid	0.22	Too acid	0.77
529B:				
Perida	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Too acid	0.22	Too acid	0.77
	Depth to saturated zone	0.09	Depth to saturated zone	0.09
531A:				
Stengel	Very limited		Very limited	
	Filtering capacity	1.00	Droughty	1.00
	Depth to saturated zone	1.00	Filtering capacity	1.00
	Droughty	1.00	Depth to saturated zone	1.00
	Depth to discontinuity	0.99	Depth to discontinuity	0.99
	Leaching	0.70	Too acid	0.31
542B:				
Haugen, very stony	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.89	Too acid	0.91
	Too stony	0.50	Restricted permeability	0.78
	Too acid	0.32		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
542B:				
Haugen	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.89	Too acid	0.91
	Too acid	0.32	Restricted permeability	0.78
542C:				
Haugen, very stony	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.89	Too acid	0.91
	Too stony	0.50	Restricted permeability	0.78
	Too acid	0.32	Slope	0.04
	Slope	0.04		
Haugen	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.89	Too acid	0.91
	Too acid	0.32	Restricted permeability	0.78
	Slope	0.04	Slope	0.04
544F:				
Menahga	Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Low adsorption	1.00
	Too acid	0.50	Slope	1.00
	Leaching	0.45	Too acid	0.99
	Droughty	0.40	Droughty	0.40
Mahtomedi	Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00
	Droughty	1.00	Droughty	1.00
	Leaching	0.45	Too acid	0.42
	Too acid	0.11		
553B:				
Branstad	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
553C:				
Branstad	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Slope	0.04	Slope	0.04
553D:				
Branstad	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
555A:				
Fordum	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00
	Runoff	0.40		
557B:				
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.49	Droughty	0.49
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
557C:				
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.49	Droughty	0.49
	Leaching	0.45	Too acid	0.31
	Too acid	0.08	Slope	0.04
	Slope	0.04		
557D:				
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Droughty	0.49	Droughty	0.49
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
586A:				
Chelmo	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Ponding	1.00	Ponding	1.00
	Runoff	0.40		
600A:				
Haplosaprists	Not rated		Not rated	
Psammaquents	Not rated		Not rated	
615B:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
615C:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08	Slope	0.04
	Slope	0.04		
615D:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
620C:				
Lundeen	Somewhat limited		Very limited	
	Too stony	0.50	Low adsorption	1.00
	Too acid	0.50	Too acid	0.99
	Depth to bedrock	0.46	Depth to bedrock	0.46
	Runoff	0.40		
Haustrup	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Droughty	0.95	Low adsorption	1.00
	Too acid	0.82	Too acid	1.00
	Too stony	0.50	Droughty	0.95
	Runoff	0.40		
Rock outcrop	Not rated		Not rated	
621A:				
Bjorkland	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Low adsorption	1.00
	Ponding	1.00	Restricted permeability	1.00
	Too acid	0.62	Too acid	1.00
623A:				
Capitola	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Leaching	0.70	Ponding	1.00
	Too stony	0.50	Depth to dense material	0.46
	Depth to dense material	0.46	Too acid	0.31

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
624A:				
Ossmer	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.08	Too acid	0.31
631A:				
Giese	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Low adsorption	1.00
	Ponding	1.00	Restricted permeability	1.00
	Leaching	0.70	Ponding	1.00
	Too stony	0.50	Too acid	0.96
632A:				
Aftad	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.41	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.30
632B:				
Aftad	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.41	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.30
632C:				
Aftad	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Restricted permeability	0.41	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.30
	Slope	0.04	Slope	0.04
634C:				
Drylanding	Very limited		Very limited	
	Depth to bedrock	1.00	Droughty	1.00
	Droughty	1.00	Depth to bedrock	1.00
	Cobble content	0.87	Low adsorption	1.00
	Runoff	0.40	Cobble content	0.87
	Large stones on the surface	0.08	Large stones on the surface	0.08
Beartree	Very limited		Very limited	
	Depth to saturated zone	1.00	Droughty	1.00
	Depth to bedrock	1.00	Depth to saturated zone	1.00
	Droughty	1.00	Depth to bedrock	1.00
	Dense layer	1.00	Low adsorption	1.00
	Ponding	1.00	Ponding	1.00
Rock outcrop	Not rated		Not rated	

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
635C:				
Drylanding	Very limited		Very limited	
	Depth to bedrock	1.00	Droughty	1.00
	Droughty	1.00	Depth to bedrock	1.00
	Cobble content	0.87	Low adsorption	1.00
	Runoff	0.40	Cobble content	0.87
	Large stones on the surface	0.08	Flooding	0.40
Beartree	Very limited		Very limited	
	Depth to saturated zone	1.00	Droughty	1.00
	Depth to bedrock	1.00	Depth to saturated zone	1.00
	Droughty	1.00	Depth to bedrock	1.00
	Dense layer	1.00	Low adsorption	1.00
	Ponding	1.00	Ponding	1.00
Rock outcrop	Not rated		Not rated	
648B:				
Sconsin	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to dense material	0.54	Depth to dense material	0.54
	Too acid	0.08	Too acid	0.31
669D:				
Fremstadt, stony	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Too stony	0.50	Too acid	0.91
	Too acid	0.32	Filtering capacity	0.01
	Filtering capacity	0.01		
Pomroy	Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.32	Too acid	0.91
	Droughty	0.05	Droughty	0.05
671B:				
Spoonerhill, stony	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Leaching	0.45	Too acid	0.31
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.08	Droughty	0.04
	Droughty	0.04	Filtering capacity	0.01

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
671B:				
Spoonerhill---------	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Leaching	0.45	Too acid	0.31
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.08	Droughty	0.04
	Droughty	0.04	Filtering capacity	0.01
706A:				
Winterfield---------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Leaching	0.90	Droughty	0.20
	Droughty	0.20		
Totagatic----------	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00
	Runoff	0.40	Too acid	0.42
715A:				
Mora----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too stony	0.50	Too acid	0.42
	Too acid	0.11		
717B:				
Milaca----------	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too stony	0.50	Too acid	0.42
	Too acid	0.11		
717C:				
Milaca----------	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too stony	0.50	Too acid	0.42
	Too acid	0.11	Slope	0.04
	Slope	0.04		
720F:				
Haustrup----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Slope	1.00	Low adsorption	1.00
	Droughty	0.95	Slope	1.00
	Too acid	0.82	Too acid	1.00
	Too stony	0.50	Droughty	0.95

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
720F:				
Lundeen	Very limited		Very limited	
	Slope	1.00	Low adsorption	1.00
	Too stony	0.50	Slope	1.00
	Too acid	0.50	Too acid	0.99
	Depth to bedrock	0.46	Depth to bedrock	0.46
	Runoff	0.40		
Rock outcrop	Not rated		Not rated	
726B:				
Sissabagama	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	0.89	Depth to saturated zone	0.86
	Depth to saturated zone	0.86	Restricted permeability	0.78
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
742B:				
Milaca	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too stony	0.50	Too acid	0.42
	Too acid	0.11		
742C:				
Milaca	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too stony	0.50	Too acid	0.42
	Too acid	0.11	Slope	0.04
	Slope	0.04		
742D:				
Milaca	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too stony	0.50	Too acid	0.42
	Too acid	0.11		
755A:				
Moppet	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.86	Flooding	1.00
	Too acid	0.62	Too acid	1.00
	Flooding	0.60	Depth to saturated zone	0.86
Fordum	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00
	Runoff	0.40		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
771A:				
Lenroot	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Droughty	0.89	Droughty	0.89
	Leaching	0.45	Too acid	0.42
	Too acid	0.11		
812B:				
Mora	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too stony	0.50	Too acid	0.42
	Too acid	0.11		
825A:				
Meehan	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.97	Droughty	0.97
	Too acid	0.27	Too acid	0.85
896A:				
Wurtsmith	Very limited		Very limited	
	Filtering capacity	1.00	Droughty	1.00
	Droughty	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Leaching	0.45	Too acid	0.85
	Too acid	0.27		
980A:				
Soderbeck	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.96	Low adsorption	1.00
	Too stony	0.50	Droughty	0.96
	Cobble content	0.50	Cobble content	0.50
1070C:				
Fremstadt	Somewhat limited		Somewhat limited	
	Leaching	0.45	Too acid	0.31
	Slope	0.16	Slope	0.16
	Too acid	0.08	Filtering capacity	0.01
	Filtering capacity	0.01		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08	Slope	0.04
	Slope	0.04		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
1070D:				
Fremstadt	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Leaching	0.45	Too acid	0.31
	Too acid	0.08	Filtering capacity	0.01
	Filtering capacity	0.01		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
1080B:				
Spoonerhill	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Leaching	0.45	Too acid	0.31
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.08	Droughty	0.04
	Droughty	0.04	Filtering capacity	0.01
Spoonerhill, stony	Very limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Leaching	0.45	Too acid	0.31
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.08	Droughty	0.04
	Droughty	0.04	Filtering capacity	0.01
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	0.60	Droughty	0.60
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
2002:				
Udorthents, earthen dams	Not rated		Not rated	
2015:				
Pits	Not rated		Not rated	
2050:				
Landfill	Not rated		Not rated	

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3011A:				
Barronett	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Leaching	0.70	Too acid	0.31
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.08		
3082E:				
Braham	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Too acid	0.01	Too acid	0.03
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00
	Droughty	0.49	Droughty	0.49
	Leaching	0.45	Too acid	0.31
	Too acid	0.08		
3114A:				
Saprists	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Runoff	0.40	Low adsorption	1.00
	Too acid	0.08	Too acid	0.31
Aquents	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.62	Low adsorption	1.00
	Runoff	0.40	Too acid	1.00
Aquepts	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Runoff	0.40	Low adsorption	1.00
	Too acid	0.02	Too acid	0.07
3125A:				
Meehan	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.94	Droughty	0.94
	Leaching	0.45	Too acid	0.85
	Too acid	0.27		

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
3126A:				
Wurtsmith	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Too acid	1.00
	Droughty	0.85	Depth to saturated zone	0.99
	Too acid	0.78	Droughty	0.85
	Leaching	0.45		
3312B:				
Glendenning, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too stony	0.50	Too acid	0.31
	Restricted permeability	0.41	Restricted permeability	0.31
	Too acid	0.08		
Glendenning	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.41	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31
3336A:				
Fenander	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Leaching	0.70	Restricted permeability	0.31
	Restricted permeability	0.41		
3403A:				
Loxley	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00
Beseman	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00
	Restricted permeability	0.41	Restricted permeability	0.31

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3403A:				
Dawson	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.94	Too acid	1.00
	Leaching	0.90	Ponding	1.00
3429B:				
Lara	Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Filtering capacity	0.01	Filtering capacity	0.01
3429C:				
Lara	Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slope	0.04	Slope	0.04
	Filtering capacity	0.01	Filtering capacity	0.01
3446A:				
Newson	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00
	Too acid	0.62	Too acid	1.00
	Runoff	0.40	Ponding	1.00
3448B:				
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.27	Too acid	0.85
	Droughty	0.02	Droughty	0.02
3448C:				
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.27	Too acid	0.85
	Slope	0.04	Slope	0.04
	Droughty	0.02	Droughty	0.02

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
3510B:				
Pomroy	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too stony	0.50	Too acid	0.91
	Too acid	0.32	Droughty	0.05
	Droughty	0.05		
Fremstadt	Somewhat limited		Somewhat limited	
	Too stony	0.50	Too acid	0.91
	Too acid	0.32	Filtering capacity	0.01
	Filtering capacity	0.01		
Fremstadt, stony	Somewhat limited		Somewhat limited	
	Too acid	0.32	Too acid	0.91
	Filtering capacity	0.01	Filtering capacity	0.01
3510C:				
Pomroy	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too stony	0.50	Too acid	0.91
	Too acid	0.32	Slope	0.16
	Slope	0.16	Droughty	0.05
Fremstadt	Somewhat limited		Somewhat limited	
	Too acid	0.32	Too acid	0.91
	Slope	0.16	Slope	0.16
	Filtering capacity	0.01	Filtering capacity	0.01
Fremstadt, stony	Somewhat limited		Somewhat limited	
	Too stony	0.50	Too acid	0.91
	Too acid	0.32	Slope	0.16
	Slope	0.16	Filtering capacity	0.01
	Filtering capacity	0.01		
3511A:				
Bushville	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.23	Too acid	0.42
	Too acid	0.11	Droughty	0.23
3516A:				
Slimlake	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	0.86
	Too acid	0.11	Too acid	0.42
	Droughty	0.07	Droughty	0.07

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3625A:				
Lino	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Leaching	0.45	Too acid	0.67
	Droughty	0.33	Droughty	0.33
	Too acid	0.18		
3626A:				
Crex	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.99	Low adsorption	1.00
	Too acid	0.62	Too acid	1.00
	Droughty	0.01	Depth to saturated zone	0.99
			Droughty	0.01
3629B:				
Perida	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00
	Leaching	0.45	Too acid	0.85
	Too acid	0.27	Depth to saturated zone	0.09
	Depth to saturated zone	0.09		
3636B:				
Plainbo	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Low adsorption	1.00
	Depth to bedrock	0.46	Droughty	1.00
	Too acid	0.32	Too acid	0.91
			Depth to bedrock	0.46
3636C:				
Plainbo	Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00
	Droughty	1.00	Low adsorption	1.00
	Depth to bedrock	0.46	Droughty	1.00
	Too acid	0.32	Too acid	0.91
	Slope	0.04	Depth to bedrock	0.46
M-W:				
Miscellaneous water	Not rated		Not rated	
W:				
Water	Not rated		Not rated	

Table 21b.--Agricultural Waste 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 soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3A:				
Totagatic	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Too acid	0.77	Too acid	0.77
Bowstring	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low adsorption	1.00	Low adsorption	1.00
	Flooding	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
Ausable	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
	Too acid	0.07	Too acid	0.07
12A:				
Makwa	Very limited		Very limited	
	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	1.00
	Large stones on the surface	1.00	Ponding	1.00
	Ponding	1.00	Stone content	0.84
22A:				
Comstock	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	1.00
	Restricted permeability	0.31	Too acid	0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
27A:				
Scott Lake----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	0.86
	Too acid	0.31	Too acid	0.31
	Droughty	0.05		
28B:				
Haugen, very stony--	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.91	Depth to saturated zone	0.99
	Restricted permeability	0.78	Too acid	0.91
	Too steep for surface application	0.08		
Haugen----------	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.91	Depth to saturated zone	0.99
	Restricted permeability	0.78	Too acid	0.91
	Too steep for surface application	0.08		
Rosholt, very stony	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.40	Too acid	0.31
	Too acid	0.31		
	Too steep for surface application	0.08		
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.33	Too acid	0.31
	Too acid	0.31		
	Too steep for surface application	0.08		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
28C:				
Haugen, very stony--	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.91	Too acid	0.91
	Restricted permeability	0.78	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22		
Haugen----------	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.91	Too acid	0.91
	Restricted permeability	0.78	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22		
Rosholt, very stony	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	0.40	Too acid	0.31
	Too acid	0.31		
	Too steep for sprinkler application	0.22		
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	0.33	Too acid	0.31
	Too acid	0.31		
	Too steep for sprinkler application	0.22		
38A:				
Rosholt----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.33	Too acid	0.31
	Too acid	0.31		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
38B:				
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.33	Too acid	0.31
	Too acid	0.31		
	Too steep for surface application	0.08		
38C:				
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	0.33	Too acid	0.31
	Too acid	0.31		
	Too steep for sprinkler application	0.22		
38D:				
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Droughty	0.33		
	Too acid	0.31		
42D:				
Amery	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Too acid	0.77	Too acid	0.77
	Restricted permeability	0.31		
43B:				
Antigo	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	0.31	Too acid	0.31
	Too steep for surface application	0.08		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
43C:				
Antigo	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.94
	Too steep for sprinkler application	0.60	Too acid	0.31
	Too acid	0.31		
63A:				
Crystal Lake	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	0.99
	Restricted permeability	0.31	Too acid	0.31
63B:				
Crystal Lake	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	0.99
	Restricted permeability	0.31	Too acid	0.31
	Too steep for surface application	0.08		
63C:				
Crystal Lake	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.31	Too steep for surface application	0.50
	Restricted permeability	0.31	Too acid	0.31
	Too steep for sprinkler application	0.22		
64A:				
Totagatic	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Too acid	0.77	Too acid	0.77

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
64A:				
Winterfield---------	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Droughty	0.52		
69C:				
Keweenaw----------	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too acid	0.77	Too steep for surface application	0.78
	Too steep for sprinkler application	0.40	Too acid	0.77
	Filtering capacity	0.01		
Sayner----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.78
	Droughty	0.99	Too acid	0.77
	Too acid	0.77		
	Too steep for sprinkler application	0.40		
Vilas----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.78
	Too steep for sprinkler application	0.40	Too acid	0.31
	Too acid	0.31		
	Droughty	0.04		
69E:				
Keweenaw----------	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Too acid	0.77	Too acid	0.77
	Filtering capacity	0.01		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
69E:				
Sayner	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.77
	Droughty	0.99		
	Too acid	0.77		
Vilas	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Too acid	0.31		
	Droughty	0.04		
82B:				
Cutaway	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.03	Too acid	0.03
	Too steep for surface application	0.02		
Branstad	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too steep for surface application	0.02	Depth to saturated zone	0.99
82C:				
Cutaway	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Depth to saturated zone	0.99
	Depth to saturated zone	0.99	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22	Too acid	0.03
	Too acid	0.03		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
82C:				
Branstad	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too steep for sprinkler application	0.22	Too steep for surface application	0.50
83A:				
Smestad	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Too acid	0.14
	Too acid	0.14		
85B:				
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.14	Too acid	0.14
	Too steep for surface application	0.08		
85C:				
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22	Too acid	0.14
	Too acid	0.14		
86A:				
Indus	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Too level	1.00
	Ponding	1.00	Ponding	1.00
	Too acid	0.07	Seepage	0.69
			Too acid	0.07

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
86A:				
Alango	Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	0.69
	Too acid	0.07	Too acid	0.07
89A:				
Wildwood	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
	Too acid	0.42	Too acid	0.42
	Droughty	0.01		
96B:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too acid	0.77		
	Too steep for surface application	0.08		
96C:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Too acid	0.77		
96D:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too steep for sprinkler application	1.00		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
100B:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	0.99	Too acid	0.99
	Droughty	0.77		
100C:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too acid	0.99
	Too acid	0.99	Too steep for surface application	0.50
	Droughty	0.40		
	Too steep for sprinkler application	0.22		
100D:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.99
	Too acid	0.99		
	Droughty	0.40		
120B:				
Kost	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.64	Too acid	0.07
	Too acid	0.07		
127D:				
Amery	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Too acid	0.77	Too acid	0.77
	Restricted permeability	0.31		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
127D:				
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Droughty	0.40		
	Too acid	0.31		
127E:				
Amery	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Too acid	0.77	Too acid	0.77
	Restricted permeability	0.31		
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Droughty	0.40		
	Too acid	0.31		
151A:				
Bluffton	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Depth to saturated zone	1.00
			Ponding	1.00
152A:				
Alstad	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.07	Depth to saturated zone	1.00
			Too acid	0.07

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
154E:				
Cushing----------	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Restricted permeability	0.31	Too acid	0.07
	Too acid	0.07		
156B:				
Magnor, very stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.85	Depth to saturated zone	1.00
	Restricted permeability	0.60	Too acid	0.85
Magnor----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.85	Depth to saturated zone	1.00
	Restricted permeability	0.60	Too acid	0.85
157B:				
Freeon, very stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.77	Depth to saturated zone	1.00
	Restricted permeability	0.60	Too acid	0.77
	Too steep for surface application	0.08		
Freeon----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.85	Depth to saturated zone	1.00
	Restricted permeability	0.60	Too acid	0.85
	Too steep for surface application	0.08		
157C:				
Freeon, very stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too steep for surface application	1.00	Depth to saturated zone	1.00
	Too acid	0.77	Too acid	0.77
	Restricted permeability	0.60	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
157C:				
Freeon	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too steep for surface application	1.00	Depth to saturated zone	1.00
	Too acid	0.85	Too acid	0.85
	Restricted permeability	0.60	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22		
160A:				
Oesterle	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.77	Too acid	0.77
	Droughty	0.09		
165B:				
Elderon	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.99	Cobble content	0.86
	Too steep for surface application	0.08	Too acid	0.03
	Too acid	0.03		
185B:				
Tradelake	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Too acid	0.42
	Too acid	0.42		
	Too steep for surface application	0.08		
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.14	Too acid	0.14
	Too steep for surface application	0.08		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
185C:				
Tradelake----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Too steep for surface application	0.50
	Too steep for surface application	1.00	Too acid	0.42
	Too acid	0.42		
Taylor----------	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22	Too acid	0.14
	Too acid	0.14		
185D:				
Tradelake----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.99
	Too steep for sprinkler application	1.00	Too acid	0.42
	Depth to saturated zone	0.99		
Taylor----------	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.14
	Too acid	0.14		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
185E:				
Tradelake	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Depth to saturated zone	0.99
	Restricted permeability	1.00	Too acid	0.42
	Depth to saturated zone	0.99		
Taylor	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.14
	Too acid	0.14		
189A:				
Siren	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.60	Too acid	1.00
193A:				
Minocqua	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Too acid	0.07	Too acid	0.07
337A:				
Plover	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Restricted permeability	0.78	Depth to saturated zone	1.00
	Too acid	0.31	Too acid	0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
368B:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	1.00	Too acid	0.42
	Too acid	0.42		
	Too steep for surface application	0.08		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.60	Too acid	0.31
	Too acid	0.31		
	Too steep for surface application	0.08		
368C:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	1.00	Too acid	0.42
	Too acid	0.42		
	Too steep for sprinkler application	0.22		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	0.60	Too acid	0.31
	Too acid	0.31		
	Too steep for sprinkler application	0.22		
368D:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.42
	Droughty	1.00		
	Too acid	0.42		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
368D:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Droughty	0.60		
	Too acid	0.31		
368E:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.42
	Droughty	1.00		
	Too acid	0.42		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Droughty	0.60		
	Too acid	0.31		
380B:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.60	Too acid	0.31
	Too acid	0.31		
	Too steep for surface application	0.08		
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.33	Too acid	0.31
	Too acid	0.31		
	Too steep for surface application	0.08		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
380C:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
			Too acid	0.31
	Droughty	0.60		
	Too acid	0.31		
	Too steep for sprinkler application	0.22		
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
			Too acid	0.31
	Droughty	0.33		
	Too acid	0.31		
	Too steep for sprinkler application	0.22		
380D:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
			Too acid	0.31
	Too steep for sprinkler application	1.00		
	Droughty	0.60		
	Too acid	0.31		
Rosholt	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
			Too acid	0.31
	Too steep for sprinkler application	1.00		
	Droughty	0.33		
	Too acid	0.31		
383B:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
			Too acid	0.42
	Droughty	1.00		
	Too acid	0.42		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
383C:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	1.00	Too acid	0.42
	Too acid	0.42		
	Too steep for sprinkler application	0.22		
383D:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.42
	Droughty	1.00		
	Too acid	0.42		
392C:				
Rockmarsh	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Cobble content	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Cobble content	1.00
	Too acid	0.91	Too steep for surface application	0.94
	Too steep for sprinkler application	0.60	Too acid	0.91
Dairyland	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Cobble content	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Droughty	0.91	Too steep for surface application	0.94
	Too steep for sprinkler application	0.60		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
392C:				
Makwa	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	1.00
	Large stones on the surface	1.00	Stone content	0.84
	Too steep for surface application	0.92	Too acid	0.77
	Too acid	0.77	Cobble content	0.06
396B:				
Friendship	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.90	Too acid	0.21
	Too acid	0.21		
Wurtsmith	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	1.00	Too acid	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Droughty	0.87		
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	1.00	Too acid	1.00
	Droughty	1.00		
397A:				
Perchlake	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.77	Too acid	0.77
	Droughty	0.25		
399B:				
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	1.00	Too acid	1.00
	Droughty	1.00		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
399C:				
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	1.00	Too acid	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	1.00		
	Too steep for sprinkler application	0.22		
399D:				
Grayling	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	1.00
	Too acid	1.00		
	Droughty	1.00		
406A:				
Loxley	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Too level	1.00
			Ponding	1.00
407A:				
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Too acid	0.31	Too level	1.00
			Ponding	1.00
			Too acid	0.31
Markey	Very limited		Very limited	
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
410A:				
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Too acid	0.31	Too level	1.00
			Ponding	1.00
			Too acid	0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
410A:				
Cathro	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Too acid	0.07	Too level	1.00
			Ponding	1.00
			Too acid	0.07
419A:				
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Too acid	0.31	Too level	1.00
			Ponding	1.00
			Too acid	0.31
Cathro	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Too acid	0.07	Too level	1.00
			Ponding	1.00
			Too acid	0.07
Markey	Very limited		Very limited	
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Too level	1.00
			Ponding	1.00
421A:				
Dora	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Too level	1.00
	Too acid	0.07	Ponding	1.00
			Too acid	0.07
Markey	Very limited		Very limited	
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Too level	1.00
			Ponding	1.00
Seelyeville	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Too acid	0.31	Too level	1.00
			Ponding	1.00
			Too acid	0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
422A:				
Seelyeville---------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Too acid	0.31	Too level	1.00
			Ponding	1.00
			Too acid	0.31
Cathro----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Seepage	1.00
	Too acid	0.07	Too level	1.00
			Ponding	1.00
			Too acid	0.07
Rondeau----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	1.00
			Too level	1.00
	Ponding	1.00	Ponding	1.00
426B:				
Emmert----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
			Too acid	0.03
	Droughty	1.00		
	Too steep for surface application	0.08		
	Too acid	0.03		
Mahtomedi----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
			Too acid	0.42
	Droughty	1.00		
	Too acid	0.42		
	Too steep for surface application	0.08		
Menahga----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
			Too acid	0.99
	Too acid	0.99		
	Droughty	0.39		
	Too steep for surface application	0.08		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
426C:				
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	1.00	Too steep for surface application	0.50
	Too steep for surface application	1.00	Too acid	0.03
	Too steep for sprinkler application	0.22		
	Too acid	0.03		
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	1.00	Too acid	0.42
	Too acid	0.42		
	Too steep for sprinkler application	0.22		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too acid	0.99
	Too acid	0.99	Too steep for surface application	0.50
	Droughty	0.39		
	Too steep for sprinkler application	0.22		
426D:				
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Droughty	1.00	Too acid	0.03
	Too steep for sprinkler application	1.00		
	Too acid	0.03		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
426D:				
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.42
	Droughty	1.00		
	Too acid	0.42		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.99
	Too acid	0.99		
	Droughty	0.39		
430A:				
Freya	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Too acid	0.03
	Too acid	0.03		
439B:				
Graycalm	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	0.99	Too acid	0.99
	Droughty	0.25		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	0.99	Too acid	0.99
	Droughty	0.39		
439C:				
Graycalm	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too acid	0.99
	Too acid	0.99	Too steep for surface application	0.50
	Droughty	0.25		
	Too steep for sprinkler application	0.22		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
439C:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too acid	0.99
	Too acid	0.99	Too steep for surface application	0.50
	Droughty	0.39		
	Too steep for sprinkler application	0.22		
439D:				
Graycalm	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.99
	Too acid	0.99		
	Droughty	0.25		
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.99
	Too acid	0.99		
	Droughty	0.39		
442C:				
Haugen	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too steep for surface application	0.92	Depth to saturated zone	0.99
	Too acid	0.91	Too acid	0.91
	Restricted permeability	0.78	Too steep for surface application	0.06
	Too steep for sprinkler application	0.02		
Greenwood	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Ponding	1.00

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
443D:				
Amery	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Too acid	0.31	Too acid	0.31
	Restricted permeability	0.31		
Greenwood	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Ponding	1.00
459A:				
Loxley	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Too level	1.00
			Ponding	1.00
Daisybay	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Restricted permeability	1.00	Too level	1.00
	Ponding	1.00	Ponding	1.00
Dawson	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Too level	1.00
	Low adsorption	0.01	Ponding	1.00
461A:				
Bowstring	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low adsorption	1.00	Low adsorption	1.00
	Flooding	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
465A:				
Newson	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Ponding	1.00
	Droughty	0.03		
Meehan	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.97	Too acid	0.85
	Too acid	0.85		
469E:				
Bigisland	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Droughty	1.00	Cobble content	0.95
	Cobble content	0.95	Stone content	0.08
	Large stones on the surface	0.08	Too acid	0.03
Milaca	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.42	Too acid	0.42
471B:				
Dairyland	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Cobble content	1.00
	Droughty	0.91	Depth to saturated zone	0.99
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	1.00	Too acid	0.03
	Too acid	0.03		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
471C:				
Dairyland	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Cobble content	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Droughty	0.91	Too steep for surface application	0.94
	Too steep for sprinkler application	0.60		
Emmert	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	1.00	Too steep for surface application	0.94
	Too steep for surface application	1.00	Too acid	0.03
	Too steep for sprinkler application	0.60		
	Too acid	0.03		
472A:				
Rockmarsh	Very limited		Very limited	
	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	1.00	Seepage	1.00
	Cobble content	1.00	Depth to saturated zone	1.00
	Too acid	0.91	Cobble content	1.00
	Droughty	0.21	Too acid	0.91
Clemens	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Too acid	0.42	Cobble content	0.89
			Too acid	0.42
473A:				
Dairyland	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Cobble content	1.00
	Droughty	0.91	Depth to saturated zone	0.99
Skog	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.99	Depth to saturated zone	0.86
	Depth to saturated zone	0.86	Flooding	0.40
	Too acid	0.03	Too acid	0.03

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
484A:				
Greenwood	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Ponding	1.00
Beseman	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Too acid	1.00
	Restricted permeability	0.31	Too level	1.00
			Ponding	1.00
485C:				
Lupton	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	0.10	Too steep for surface application	0.22
Tawas	Very limited		Very limited	
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Too steep for surface application	1.00	Ponding	1.00
	Ponding	1.00	Too steep for surface application	0.22
	Too steep for sprinkler application	0.10		
495B:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too acid	0.77		
	Too steep for surface application	0.08		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
495B:				
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	0.85	Too acid	0.85
	Too steep for surface application	0.08		
	Droughty	0.02		
Perida	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	1.00	Too acid	0.85
	Too acid	0.85	Depth to saturated zone	0.09
	Depth to saturated zone	0.09		
	Too steep for surface application	0.08		
495C:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Too acid	0.77		
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too acid	0.85
	Too acid	0.85	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22		
	Droughty	0.02		
Perida	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	1.00	Too acid	0.85
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Too acid	0.85	Depth to saturated zone	0.09
	Too steep for sprinkler application	0.22		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
495D:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too steep for sprinkler application	1.00		
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.85
	Too acid	0.85		
	Droughty	0.02		
Perida	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	1.00	Too steep for surface application	1.00
	Too steep for surface application	1.00	Too acid	0.85
	Too steep for sprinkler application	1.00	Depth to saturated zone	0.09
	Too acid	0.85		
496B:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too acid	0.77		
	Too steep for surface application	0.08		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
496C:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Too acid	0.77		
496D:				
Karlsborg	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too steep for sprinkler application	1.00		
497A:				
Meenon	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Too acid	0.31
	Too acid	0.31		
	Droughty	0.03		
521A:				
Dody	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Ponding	1.00
	Ponding	1.00	Too acid	0.31
	Too acid	0.31		
523A:				
Nokasippi	Very limited		Very limited	
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Too level	1.00
	Too acid	0.77	Ponding	1.00
			Too acid	0.77

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
529B:				
Perida	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	1.00	Too acid	0.77
	Too acid	0.77	Depth to saturated zone	0.09
	Depth to saturated zone	0.09		
531A:				
Stengel	Very limited		Very limited	
	Droughty	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Too acid	0.31
	Too acid	0.31		
542B:				
Haugen, very stony	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.91	Depth to saturated zone	0.99
	Restricted permeability	0.78	Too acid	0.91
	Too steep for surface application	0.08		
Haugen	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.91	Depth to saturated zone	0.99
	Restricted permeability	0.78	Too acid	0.91
	Too steep for surface application	0.08		
542C:				
Haugen, very stony	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.91	Too acid	0.91
	Restricted permeability	0.78	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
542C:				
Haugen	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.91	Too acid	0.91
	Restricted permeability	0.78	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22		
544F:				
Menahga	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.99
	Too acid	0.99		
	Droughty	0.40		
Mahtomedi	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.42
	Droughty	1.00		
	Too acid	0.42		
553B:				
Branstad	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
			Depth to saturated zone	0.99
553C:				
Branstad	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too steep for sprinkler application	0.22	Too steep for surface application	0.50

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
553D:				
Branstad	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
555A:				
Fordum	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
557B:				
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.49	Too acid	0.31
	Too acid	0.31		
557C:				
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	0.49	Too acid	0.31
	Too acid	0.31		
	Too steep for sprinkler application	0.22		
557D:				
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Droughty	0.49		
	Too acid	0.31		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
586A:				
Chelmo	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Ponding	1.00
	Ponding	1.00		
600A:				
Haplosaprists	Not rated		Not rated	
Psammaquents	Not rated		Not rated	
615B:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.60	Too acid	0.31
	Too acid	0.31		
615C:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	0.60	Too acid	0.31
	Too acid	0.31		
	Too steep for sprinkler application	0.22		
615D:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Droughty	0.60		
	Too acid	0.31		
620C:				
Lundeen	Very limited		Very limited	
	Too acid	0.99	Seepage	1.00
	Too steep for surface application	0.92	Depth to bedrock	1.00
	Depth to bedrock	0.46	Too acid	0.99
	Too steep for sprinkler application	0.02	Too steep for surface application	0.06

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
620C:				
Haustrup	Very limited		Very limited	
	Depth to bedrock	1.00	Seepage	1.00
	Too acid	1.00	Depth to bedrock	1.00
	Droughty	0.95	Too acid	1.00
	Too steep for surface application	0.92	Too steep for surface application	0.06
	Too steep for sprinkler application	0.02		
Rock outcrop	Not rated		Not rated	
621A:				
Bjorkland	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Too acid	1.00
	Too acid	1.00	Ponding	1.00
	Ponding	1.00		
623A:				
Capitola	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Too acid	0.31	Ponding	1.00
	Droughty	0.01	Too acid	0.31
	Filtering capacity	0.01		
624A:				
Ossmer	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.31	Too acid	0.31
631A:				
Giese	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Restricted permeability	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Too level	1.00
	Too acid	0.96	Ponding	1.00
	Filtering capacity	0.01	Too acid	0.96
632A:				
Aftad	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	0.99
	Restricted permeability	0.30	Too acid	0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
632B:				
Aftad	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	0.99
	Restricted permeability	0.30	Too acid	0.31
	Too steep for surface application	0.08		
632C:				
Aftad	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.31	Too steep for surface application	0.50
	Restricted permeability	0.30	Too acid	0.31
	Too steep for sprinkler application	0.22		
634C:				
Drylanding	Very limited		Very limited	
	Droughty	1.00	Seepage	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too steep for surface application	0.92	Too steep for surface application	0.06
	Cobble content	0.87	Too acid	0.03
	Large stones on the surface	0.08		
Beartree	Very limited		Very limited	
	Droughty	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
			Cobble content	0.02
Rock outcrop	Not rated		Not rated	
635C:				
Drylanding	Very limited		Very limited	
	Droughty	1.00	Seepage	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too steep for surface application	0.92	Flooding	0.40
			Too steep for surface application	0.06
	Cobble content	0.87		
	Large stones on the surface	0.08	Too acid	0.03

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
635C:				
Beartree	Very limited		Very limited	
	Droughty	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
			Flooding	0.40
Rock outcrop	Not rated		Not rated	
648B:				
Sconsin	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	1.00
	Too steep for surface application	0.08	Too acid	0.31
669D:				
Fremstadt, stony	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Too acid	0.91	Too acid	0.91
	Filtering capacity	0.01		
Pomroy	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Depth to saturated zone	0.99
	Depth to saturated zone	0.99	Too acid	0.91
	Too acid	0.91		
671B:				
Spoonerhill, stony	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	0.99
	Restricted permeability	0.31	Too acid	0.31
	Too steep for surface application	0.08		
	Droughty	0.04		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
671B:				
Spoonerhill---------	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	0.99
	Restricted permeability	0.31	Too acid	0.31
	Too steep for surface application	0.08		
	Droughty	0.04		
706A:				
Winterfield---------	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Droughty	0.20		
Totagatic----------	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Too acid	0.42	Too acid	0.42
715A:				
Mora----------	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.42	Depth to saturated zone	1.00
			Too acid	0.42
717B:				
Milaca----------	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.42	Depth to saturated zone	0.99
	Too steep for surface application	0.32	Too acid	0.42
717C:				
Milaca----------	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.42	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22	Too acid	0.42

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
720F:				
Haustrup	Very limited		Very limited	
	Depth to bedrock	1.00	Seepage	1.00
	Too steep for surface application	1.00	Depth to bedrock	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Too acid	1.00	Too acid	1.00
	Droughty	0.95		
Lundeen	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Depth to bedrock	1.00
	Too acid	0.99	Too steep for surface application	1.00
	Depth to bedrock	0.46	Too acid	0.99
Rock outcrop	Not rated		Not rated	
726B:				
Sissabagama	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	0.86
	Restricted permeability	0.78	Too acid	0.31
	Too acid	0.31		
742B:				
Milaca	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.42	Depth to saturated zone	0.99
	Too steep for surface application	0.08	Too acid	0.42
742C:				
Milaca	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.42	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22	Too acid	0.42

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
742D:				
Milaca	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.42	Too acid	0.42
755A:				
Moppet	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Too acid	1.00	Seepage	1.00
	Depth to saturated zone	0.86	Too acid	1.00
	Flooding	0.60	Depth to saturated zone	0.86
Fordum	Very limited		Very limited	
	Filtering capacity	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
771A:				
Lenroot	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Droughty	0.89	Too acid	0.42
	Too acid	0.42		
812B:				
Mora	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.42	Depth to saturated zone	1.00
			Too acid	0.42
825A:				
Meehan	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.97	Too acid	0.85
	Too acid	0.85		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
896A:				
Wurtsmith----------	Very limited		Very limited	
	Droughty	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.99
	Depth to saturated zone	0.99	Too acid	0.85
	Too acid	0.85		
980A:				
Soderbeck----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.96	Cobble content	0.99
	Cobble content	0.50	Depth to bedrock	0.42
	Too acid	0.21	Flooding	0.40
1070C:				
Fremstadt----------	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	0.40	Too steep for surface application	0.78
	Too acid	0.31	Too acid	0.31
	Filtering capacity	0.01		
Cress----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Droughty	0.60	Too acid	0.31
	Too acid	0.31		
	Too steep for sprinkler application	0.22		
1070D:				
Fremstadt----------	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Too acid	0.31	Too acid	0.31
	Filtering capacity	0.01		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
1070D:				
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Droughty	0.60		
	Too acid	0.31		
1080B:				
Spoonerhill	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	0.99
	Restricted permeability	0.31	Too acid	0.31
	Too steep for surface application	0.08		
	Droughty	0.04		
Spoonerhill, stony	Very limited		Very limited	
	Depth to saturated zone	0.99	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	0.99
	Restricted permeability	0.31	Too acid	0.31
	Too steep for surface application	0.08		
	Droughty	0.04		
Cress	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	0.60	Too acid	0.31
	Too acid	0.31		
2002:				
Udorthents, earthen dams	Not rated		Not rated	
2015:				
Pits	Not rated		Not rated	
2050:				
Landfill	Not rated		Not rated	
3011A:				
Barronett	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Too acid	0.31	Ponding	1.00
	Restricted permeability	0.31	Too acid	0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3082E:				
Braham	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.03
	Too acid	0.03		
Shawano	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Too acid	0.31
	Droughty	0.49		
	Too acid	0.31		
3114A:				
Saprists	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.31	Seepage	1.00
			Too level	1.00
			Too acid	0.31
Aquents	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Droughty	0.03	Too level	1.00
Aquepts	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.07	Too level	1.00
			Too acid	0.07
3125A:				
Meehan	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Droughty	0.94	Too acid	0.85
	Too acid	0.85		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
3126A:				
Wurtsmith	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	1.00	Too acid	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Droughty	0.85		
3312B:				
Glendenning, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	1.00
	Restricted permeability	0.31	Too acid	0.31
Glendenning	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.31	Depth to saturated zone	1.00
	Restricted permeability	0.31	Too acid	0.31
3336A:				
Fenander	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.31	Ponding	1.00
3403A:				
Loxley	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Too level	1.00
			Ponding	1.00
Beseman	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Too acid	1.00
	Restricted permeability	0.31	Too level	1.00
			Ponding	1.00
Dawson	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Too level	1.00
	Low adsorption	0.01	Ponding	1.00

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3429B:				
Lara	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Filtering capacity	0.01		
3429C:				
Lara	Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22		
	Filtering capacity	0.01		
3446A:				
Newson	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	1.00
	Ponding	1.00	Ponding	1.00
	Droughty	0.03		
3448B:				
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	0.85	Too acid	0.85
	Droughty	0.02		
3448C:				
Grettum	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too acid	0.85
	Too acid	0.85	Too steep for surface application	0.50
	Too steep for sprinkler application	0.22		
	Droughty	0.02		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3510B:				
Pomroy	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Too acid	0.91	Too acid	0.91
	Too steep for surface application	0.08		
	Droughty	0.05		
Fremstadt	Somewhat limited		Very limited	
	Too acid	0.91	Seepage	1.00
	Too steep for surface application	0.08	Too acid	0.91
	Filtering capacity	0.01		
Fremstadt, stony	Somewhat limited		Very limited	
	Too acid	0.91	Seepage	1.00
	Too steep for surface application	0.08	Too acid	0.91
	Filtering capacity	0.01		
3510C:				
Pomroy	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too steep for surface application	1.00	Depth to saturated zone	0.99
	Depth to saturated zone	0.99	Too acid	0.91
	Too acid	0.91	Too steep for surface application	0.78
	Too steep for sprinkler application	0.40		
Fremstadt	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too acid	0.91	Too acid	0.91
	Too steep for sprinkler application	0.40	Too steep for surface application	0.78
	Filtering capacity	0.01		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3510C:				
Fremstadt, stony----	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too acid	0.91	Too acid	0.91
	Too steep for sprinkler application	0.40	Too steep for surface application	0.78
	Filtering capacity	0.01		
3511A:				
Bushville----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.42	Too acid	0.42
	Droughty	0.23		
3516A:				
Slimlake----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	0.86
	Too acid	0.42	Too acid	0.42
	Droughty	0.07		
3625A:				
Lino----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.67	Too acid	0.67
	Droughty	0.33		
3626A:				
Crex----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Too acid	1.00	Too acid	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.99
	Droughty	0.01		
3629B:				
Perida----------	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	1.00	Too acid	0.85
	Too acid	0.85	Depth to saturated zone	0.09
	Depth to saturated zone	0.09		

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3636B:				
Plainbo	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	1.00	Depth to bedrock	1.00
	Too acid	0.91	Too acid	0.91
	Depth to bedrock	0.46		
	Too steep for surface application	0.08		
3636C:				
Plainbo	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Droughty	1.00	Depth to bedrock	1.00
	Too steep for surface application	1.00	Too acid	0.91
	Too acid	0.91	Too steep for surface application	0.50
	Depth to bedrock	0.46		
M-W:				
Miscellaneous water	Not rated		Not rated	
W:				
Water	Not rated		Not rated	

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are ascertained 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 particle-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 are shown in tables. They include engineering index properties, physical and chemical properties, and pertinent soil and water features.

Engineering Index Properties

Table 22 gives the engineering classifications and the range of index properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer 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 15 percent or more, 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, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-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, CL-ML.

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 particle-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 particle-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 generally omitted in the table.

Physical Properties

Table 23 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers 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 layer is indicated.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In table 23, the estimated clay content of each soil layer 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 affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving 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 $^1/_3$- or $^1/_{10}$-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each 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 shrink-swell potential, 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. Depending on soil texture, a bulk density of more than 1.4 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 soil layer. The capacity varies, depending on soil properties that affect retention of water. 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 refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. 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. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 23, 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 by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in table 23 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. The groups are described in the “National Soil Survey Handbook” (USDA, NRCS).

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.

Chemical Properties

Table 24 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers 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 layer is indicated.

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.

Effective cation-exchange capacity refers to the sum of extractable bases plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil 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.

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 25 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 25, *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 26 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 27 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 of the time.

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 28 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 the water table 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 zone of saturation close to the surface in 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 22.--Engineering Index Properties

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	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	
3A:												
Totagatic-------	0-4	Muck	PT	A-8	0	0	100	100	---	---	---	---
	4-8	Loamy fine sand, loamy sand, fine sand, sand	SM	A-2	0	0	100	100	50-80	20-35	0-23	NP-6
	8-17	Fine sand, sand, loamy sand, loamy fine sand	SM	A-2	0	0	100	100	50-80	5-45	0-23	NP-6
	17-28	Fine sand, sand, loamy sand, coarse sand, mucky sand	SM	A-2, A-3	0	0	100	100	50-80	5-35	0-23	NP-6
	28-46	Sand, fine sand, loamy sand, coarse sand, mucky sand	SM	A-2, A-3	0	0	100	100	50-80	5-35	0-23	NP-6
	46-70	Sand, coarse sand, loamy sand, fine sand, loamy fine sand	SM	A-2, A-3	0	0	100	100	50-80	5-45	0-23	NP-6
	70-80	Sand, coarse sand, fine sand, loamy sand, loamy fine sand	SM	A-2, A-3	0	0	100	100	50-80	5-45	0-23	NP-6
Bowstring-------	0-38	Muck	PT	A-8	0	0	100	100	---	---	---	---
	38-47	Fine sand, sand, loamy sand	SM, SP-SM	A-2	0	0	100	100	85-95	10-20	---	NP
	47-80	Muck	PT	A-8	0	0	100	100	---	---	---	---
Ausable---------	0-10	Muck	PT	A-8	0	0	100	100	---	---	---	---
	10-60	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-21	NP-4

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
12A:												
Makwa----------	0-8	Stony muck	PT	A-8	7-25	0-25	80-100	75-100	---	---	---	---
	8-16	Very gravelly loam, very cobbly silt loam, extremely gravelly sandy loam, very gravelly sandy loam, extremely cobbly silt loam	SM, ML	A-2, A-4	7-16	0-37	21-67	18-66	16-63	12-52	25-48	2-9
	16-43	Stratified extremely gravelly coarse sandy loam to extremely gravelly sandy clay loam	GC, GM, GC-GM	A-1, A-2-4	6-15	13-26	11-44	8-42	---	---	17-36	3-17
	43-65	Extremely gravelly sandy loam, extremely cobbly sandy clay loam, extremely cobbly sandy loam, extremely gravelly sandy clay loam	GC, GM, GC-GM	A-1, A-2-6, A-2-4	6-15	12-36	13-61	9-60	7-57	3-33	17-40	3-21
	65-80	Stratified silt loam to silty clay	CL, CH	A-6, A-7	0	0	100	100	90-100	70-95	29-57	13-36

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
22A:												
Comstock--------	0-8	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	23-41	4-15
	8-15	Silt loam	CL, CL-ML	A-4	0	0	98-100	95-100	90-100	85-95	18-33	4-13
	15-21	Silt loam, silty clay loam	CL	A-6	0	0	98-100	95-100	90-100	85-95	26-40	10-20
	21-34	Silt loam, silty clay loam	CL	A-6	0	0	98-100	95-100	90-100	85-95	29-42	12-21
	34-44	Stratified silt loam to very fine sand	CL, CL-ML	A-4	0	0	98-100	95-100	85-100	65-95	18-32	4-13
	44-60	Stratified silt loam to very fine sand	CL, CL-ML	A-4	0	0	98-100	95-100	85-100	65-95	18-32	4-13
27A:												
Scott Lake------	0-10	Sandy loam	SC, SM	A-2-4, A-4	0	0-7	80-100	75-100	50-80	25-45	0-26	NP-8
	10-17	Sandy loam	SC, SM	A-2-4, A-4	0	0-7	75-100	75-100	50-80	25-45	0-26	NP-8
	17-24	Sandy loam	SC, SM	A-2-4, A-4	0	0-7	75-100	75-100	50-80	25-40	18-28	3-9
	24-31	Gravelly loamy sand, loamy sand, very gravelly loamy coarse sand	GM, SM	A-1-a, A-2-4, A-3	0	0-25	30-100	25-100	15-80	5-30	0-23	NP-6
	31-80	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-9	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
28B:												
Haugen, very stony----------	0-4	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-70	20-40	19-32	3-9
	4-15	Sandy loam, gravelly sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-85	15-65	16-28	1-9
	15-23	Gravelly sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-28	1-9
	23-35	Gravelly sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-27	2-10
	35-49	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM	A-2, A-4, A-1	0-5	0-7	55-100	50-90	35-75	15-45	17-28	3-10
	49-79	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	35-75	15-45	18-30	4-12
	79-80	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	17-27	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
28B:												
Haugen----------	0-7	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-70	20-40	19-32	3-9
	7-15	Sandy loam, gravelly sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-85	15-65	16-28	1-9
	15-23	Gravelly sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-28	1-9
	23-35	Gravelly sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-27	2-10
	35-49	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM	A-2, A-4, A-1	0-5	0-7	55-100	50-90	35-75	15-45	17-28	3-10
	49-79	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	35-75	15-45	18-30	4-12
	79-80	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	17-27	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
28B:												
Rosholt, very stony----------	0-4	Sandy loam	SM	A-2, A-4	1-5	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	4-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
28B:												
Rosholt---------	0-8	Sandy loam	SM	A-2, A-4	0	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	8-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
28C:												
Haugen, very stony----------	0-4	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-70	20-40	19-32	3-9
	4-15	Sandy loam, gravelly sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-85	15-65	16-28	1-9
	15-23	Gravelly sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-28	1-9
	23-35	Gravelly sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-27	2-10
	35-49	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM	A-2, A-4, A-1	0-5	0-7	55-100	50-90	35-75	15-45	17-28	3-10
	49-79	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	35-75	15-45	18-30	4-12
	79-80	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	17-27	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
28C:												
Haugen----------	0-7	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-70	20-40	19-32	3-9
	7-15	Sandy loam, gravelly sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-85	15-65	16-28	1-9
	15-23	Gravelly sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-28	1-9
	23-35	Gravelly sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-27	2-10
	35-49	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM	A-2, A-4, A-1	0-5	0-7	55-100	50-90	35-75	15-45	17-28	3-10
	49-79	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	35-75	15-45	18-30	4-12
	79-80	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	17-27	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
28C:												
Rosholt, very stony----------	0-4	Sandy loam	SM	A-2, A-4	1-5	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	4-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
28C:												
Rosholt---------	0-8	Sandy loam	SM	A-2, A-4	0	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	8-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	15-65	0-15	0-14	NP
38A:												
Rosholt---------	0-8	Sandy loam	SM	A-2, A-4	0	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	8-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
38B:												
Rosholt---------	0-8	Sandy loam	SM	A-2, A-4	0	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	8-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	SM, SP-SM, GM, GP-GM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	15-65	0-15	0-14	NP
38C:												
Rosholt---------	0-8	Sandy loam	SM	A-2, A-4	0	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	8-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
38D:												
Rosholt---------	0-8	Sandy loam	SM	A-2, A-4	0	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	8-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
42D:												
Amery----------	0-3	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-75	25-40	0-23	NP-6
	3-22	Sandy loam, loam, gravelly loam, gravelly sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	55-100	50-90	50-75	25-45	0-23	NP-7
	22-34	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-40	0-23	NP-7
	34-41	Gravelly sandy loam, fine sandy loam, sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-40	0-23	NP-7
	41-57	Gravelly sandy loam, fine sandy loam, sandy loam	SC, SM	A-2-4, A-4, A-1-b	0-5	0-7	55-100	50-90	35-75	20-45	0-28	NP-9
	57-71	Sandy loam, fine sandy loam, gravelly sandy loam	SC, SM	A-2-4, A-4, A-1-b	0-5	0-7	55-100	50-90	35-75	20-45	0-28	NP-9
	71-80	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-45	0-23	NP-7

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
43B:												
Antigo----------	0-9	Silt loam	CL-ML, ML	A-4	0	0-7	90-100	85-100	70-100	65-85	0-25	2-7
	9-12	Silt loam	CL-ML, ML	A-4	0	0-7	90-100	85-100	70-100	65-85	15-25	2-7
	12-19	Silt loam	CL, CL-ML	A-4	0	0-7	90-100	85-100	70-100	65-85	20-30	4-9
	19-28	Silt loam	CL, CL-ML	A-4	0	0-7	90-100	85-100	70-100	65-85	20-30	4-9
	28-31	Loam, sandy loam, fine sandy loam, gravelly loam, gravelly sandy loam, very gravelly fine sandy loam	SC-SM, ML, SM, CL-ML	A-1, A-2, A-4	0	0-7	50-100	45-100	35-85	15-65	0-30	NP-9
	31-33	Very gravelly sandy loam, loam, fine sandy loam, gravelly loam, gravelly sandy loam, sandy loam	SC-SM, ML, SM	A-1, A-2, A-4	0	0-7	50-100	45-100	35-85	15-65	0-30	NP-9
	33-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
43C:												
Antigo----------	0-9	Silt loam	CL-ML, ML	A-4	0	0-7	90-100	85-100	70-100	65-85	0-25	2-7
	9-12	Silt loam	CL-ML, ML	A-4	0	0-7	90-100	85-100	70-100	65-85	15-25	2-7
	12-19	Silt loam	CL, CL-ML	A-4	0	0-7	90-100	85-100	70-100	65-85	20-30	4-9
	19-28	Silt loam	CL, CL-ML	A-4	0	0-7	90-100	85-100	70-100	65-85	20-30	4-9
	28-31	Loam, sandy loam, fine sandy loam, gravelly loam, gravelly sandy loam, very gravelly fine sandy loam	SC-SM, ML, SM, CL-ML	A-1, A-2, A-4	0	0-7	50-100	45-100	35-85	15-65	0-30	NP-9
	31-33	Very gravelly sandy loam, loam, fine sandy loam, gravelly loam, gravelly sandy loam, sandy loam	SC-SM, ML, SM	A-1, A-2, A-4	0	0-7	50-100	45-100	35-85	15-65	0-30	NP-9
	33-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
63A:												
Crystal Lake----	0-8	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	8-12	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	12-20	Silt loam, silty clay loam	CL-ML, CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	25-36	7-16
	20-32	Silt loam, silty clay loam	CL	A-6, A-4	0	0	98-100	95-100	90-100	85-95	28-40	9-18
	32-60	Stratified silt loam to very fine sand	CL, CL-ML, ML	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
63B:												
Crystal Lake----	0-8	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	8-12	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	12-20	Silt loam, silty clay loam	CL-ML, CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	25-36	7-16
	20-32	Silt loam, silty clay loam	CL	A-6, A-4	0	0	98-100	95-100	90-100	85-95	28-40	9-18
	32-60	Stratified silt loam to very fine sand	CL, CL-ML, ML	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10
63C:												
Crystal Lake----	0-8	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	8-12	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	12-20	Silt loam, silty clay loam	CL-ML, CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	25-36	7-16
	20-32	Silt loam, silty clay loam	CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	28-40	9-18
	32-60	Stratified silt loam to very fine sand	CL, CL-ML, ML	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
64A:												
Totagatic-------	0-4	Muck	PT	A-8	0	0	100	100	---	---	---	---
	4-8	Loamy fine sand, loamy sand, fine sand, sand	SM	A-2	0	0	100	100	50-80	20-35	0-23	NP-6
	8-17	Fine sand, sand, loamy sand, loamy fine sand	SM	A-2	0	0	100	100	50-80	5-45	0-23	NP-6
	17-28	Fine sand, sand, loamy sand, coarse sand, mucky sand	SM	A-2, A-3	0	0	100	100	50-80	5-35	0-23	NP-6
	28-46	Sand, fine sand, loamy sand, coarse sand, mucky sand	SM	A-2, A-3	0	0	100	100	50-80	5-35	0-23	NP-6
	46-70	Sand, coarse sand, loamy sand, fine sand, loamy fine sand	SM	A-2, A-3	0	0	100	100	50-80	5-45	0-23	NP-6
	70-80	Sand, coarse sand, fine sand, loamy sand, loamy fine sand	SM	A-2, A-3	0	0	100	100	50-80	5-45	0-23	NP-6
Winterfield-----	0-7	Loamy sand	SC-SM, SM	A-2-4	0	0	100	95-100	65-80	15-30	0-25	NP-7
	7-60	Sand, gravelly sand, gravelly loamy sand, loamy sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	60-100	60-100	40-75	5-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
69C:												
Keweenaw--------	0-2	Loamy sand	SC, SC-SM, SM	A-2, A-2-4	0-2	0-20	90-100	75-100	40-75	15-30	0-20	NP-10
	2-4	Sandy loam, loamy sand, gravelly loamy fine sand, cobbly loamy sand	SC, SC-SM, SM	A-1-b, A-2, A-2-4	0	0-50	85-100	65-100	45-75	15-35	0-20	NP-10
	4-16	Sandy loam, gravelly loamy sand, loamy sand, cobbly loamy fine sand	SC, SC-SM, SM	A-2, A-1-b, A-2-4	0	0-25	85-100	65-100	45-75	15-35	0-20	NP-10
	16-20	Loamy sand, cobbly loamy fine sand, gravelly loamy sand, sand	SC, SC-SM, SM, SP-SM	A-2, A-1-b	0	0-25	85-100	65-100	45-75	10-25	0-20	NP-10
	20-27	Loamy sand, cobbly sand, gravelly loamy fine sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2, A-2-4	0	0-25	85-100	65-100	45-75	10-25	0-23	NP-10
	27-43	Sand, cobbly loamy sand, gravelly loamy fine sand, sandy loam	SC, SC-SM, SM, SP-SM	A-3, A-1-b, A-2, A-2-4	0	0-25	85-100	65-100	40-80	5-20	0-27	NP-10
	43-75	Loamy sand, sandy loam, fine sandy loam, gravelly loamy fine sand	SC, SC-SM, SM	A-1-b, A-2, A-2-4	0	0-25	85-100	65-100	45-80	10-30	0-30	NP-10
	75-80	Loamy sand, gravelly loamy sand, cobbly sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2, A-2-4	0	0-25	85-100	65-100	45-75	10-25	0-20	NP-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
69C:												
Sayner----------	0-2	Loamy sand	SM	A-1	0-2	0-15	85-100	75-100	45-75	15-30	0-14	NP
	2-4	Loamy sand, sand	SM, SP-SM	A-1	0	0-15	85-100	75-100	40-75	10-30	0-14	NP
	4-7	Loamy sand, sand, gravelly coarse sand, loamy coarse sand	SM, SP-SM	A-1, A-3	0	0-15	70-100	50-100	25-75	3-30	0-14	NP
	7-14	Sand, loamy sand, gravelly sand, loamy coarse sand	SM, SP-SM	A-1, A-3	0	0-15	70-100	50-100	25-75	3-30	0-14	NP
	14-22	Gravelly sand, loamy sand, coarse sand, loamy coarse sand	SM, SP, SP-SM	A-1, A-3	0	0-15	70-100	50-100	25-75	3-30	0-14	NP
	22-60	Stratified sand to very gravelly coarse sand	SP, SP-SM	A-1	0	0-15	60-85	40-85	25-45	0-10	0-14	NP
Vilas----------	0-2	Loamy sand	SM	A-1-b, A-2-4	0-2	0	80-100	75-100	30-75	10-35	0-14	NP
	2-4	Loamy sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	80-100	75-100	30-75	5-35	0-14	NP
	4-11	Loamy sand	SM	A-1-b, A-2-4	0	0	80-100	75-100	30-75	10-35	0-14	NP
	11-23	Sand, loamy sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	80-100	75-100	20-75	5-35	0-14	NP
	23-32	Sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	80-100	75-100	20-70	5-25	0-14	NP
	32-80	Sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	80-100	75-100	20-70	5-25	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
69E:												
Keweenaw--------	0-2	Loamy sand	SC, SC-SM, SM	A-2, A-2-4	0-2	0-20	90-100	75-100	40-75	15-30	0-20	NP-10
	2-4	Sandy loam, loamy sand, gravelly loamy fine sand, cobbly loamy sand	SC, SC-SM, SM	A-1-b, A-2, A-2-4	0	0-50	85-100	65-100	45-75	15-35	0-20	NP-10
	4-16	Cobbly loamy fine sand, loamy sand, gravelly loamy sand, sandy loam	SC, SC-SM, SM	A-2, A-1-b, A-2-4	0	0-25	85-100	65-100	45-75	15-35	0-20	NP-10
	16-20	Loamy sand, cobbly loamy fine sand, gravelly loamy sand, sand	SC, SC-SM, SM, SP-SM	A-2, A-1-b	0	0-25	85-100	65-100	45-75	10-25	0-20	NP-10
	20-27	Loamy sand, cobbly sand, gravelly loamy fine sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2, A-2-4	0	0-25	85-100	65-100	45-75	10-25	0-23	NP-10
	27-43	Sand, cobbly loamy sand, gravelly loamy fine sand, sandy loam	SC, SC-SM, SM, SP-SM	A-3, A-1-b, A-2, A-2-4	0	0-25	85-100	65-100	40-80	5-20	0-27	NP-10
	43-75	Loamy sand, sandy loam, gravelly loamy fine sand, fine sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-2-4	0	0-25	85-100	65-100	45-80	10-30	0-30	NP-10
	75-80	Loamy sand, gravelly loamy sand, cobbly sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2, A-2-4	0	0-25	85-100	65-100	45-75	10-25	0-20	NP-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
69E:												
Sayner----------	0-2	Loamy sand	SM	A-1	0-2	0-15	85-100	75-100	45-75	15-30	0-14	NP
	2-4	Loamy sand, sand	SM, SP-SM	A-1	0	0-15	85-100	75-100	40-75	10-30	0-14	NP
	4-7	Loamy sand, sand, gravelly coarse sand, loamy coarse sand	SM, SP-SM	A-1, A-3	0	0-15	70-100	50-100	25-75	3-30	0-14	NP
	7-14	Sand, loamy sand, gravelly sand, loamy coarse sand	SM, SP-SM	A-1, A-3	0	0-15	70-100	50-100	25-75	3-30	0-14	NP
	14-22	Gravelly sand, loamy sand, coarse sand, loamy coarse sand	SM, SP, SP-SM	A-1, A-3	0	0-15	70-100	50-100	25-75	3-30	0-14	NP
	22-60	Stratified sand to very gravelly coarse sand	SP, SP-SM	A-1	0	0-15	60-85	40-85	25-45	0-10	0-14	NP
Vilas----------	0-2	Loamy sand	SM	A-1-b, A-2-4	0-2	0	80-100	75-100	30-75	10-35	0-14	NP
	2-4	Loamy sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	80-100	75-100	30-75	5-35	0-14	NP
	4-11	Loamy sand	SM	A-1-b, A-2-4	0	0	80-100	75-100	30-75	10-35	0-14	NP
	11-23	Sand, loamy sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	80-100	75-100	20-75	5-35	0-14	NP
	23-32	Sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	80-100	75-100	20-70	5-25	0-14	NP
	32-80	Sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	80-100	75-100	20-70	5-25	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
82B:												
Cutaway---------	0-10	Loamy fine sand	SC-SM, SM, SC	A-2-4	0	0	95-100	85-100	75-95	20-35	0-28	NP-9
	10-21	Loamy fine sand, loamy sand	SC-SM, SM, SC	A-2-4	0	0	95-100	85-100	75-95	20-35	0-25	NP-9
	21-24	Fine sandy loam, loamy fine sand	SC-SM, SM, SC	A-4, A-2-4	0	0	95-100	85-100	75-95	30-40	17-30	3-12
	24-35	Sandy clay loam, loam	SC, CL	A-6	0	0-7	97-100	90-96	70-85	35-50	27-40	10-20
	35-53	Loam, sandy clay loam	CL, SC	A-6	0	0-7	97-100	90-96	75-90	35-50	24-37	9-18
	53-80	Loam, sandy clay loam	CL, SC	A-6	0	0-7	97-100	90-96	75-90	35-50	22-35	7-16
Branstad--------	0-9	Fine sandy loam	SC-SM, SC, CL-ML	A-4	0	0-7	85-100	80-98	55-85	30-55	22-32	5-11
	9-14	Fine sandy loam, loam, sandy loam	CL, CL-ML, SC, SC-SM	A-2-4, A-4, A-6	0	0-7	85-100	80-98	45-95	25-75	21-34	6-16
	14-20	Fine sandy loam, sandy clay loam, loam, sandy loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	45-95	25-75	23-36	8-17
	20-45	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	45-55	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	55-68	Fine sandy loam, sandy clay loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	68-80	Fine sandy loam, loam, sandy clay loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
82C:												
Cutaway---------	0-10	Loamy fine sand	SC, SC-SM, SM	A-2-4	0	0	95-100	85-100	75-95	20-35	0-28	NP-9
	10-21	Loamy fine sand, loamy sand	SC-SM, SM, SC	A-2-4	0	0	95-100	85-100	75-95	20-35	0-25	NP-9
	21-24	Fine sandy loam, loamy fine sand	SC-SM, SM, SC	A-4, A-2-4	0	0	95-100	85-100	75-95	30-40	17-30	3-12
	24-35	Sandy clay loam, loam	SC, CL	A-6	0	0-7	97-100	90-96	70-85	35-50	27-40	10-20
	35-53	Loam, sandy clay loam	CL, SC	A-6	0	0-7	97-100	90-96	75-90	35-50	24-37	9-18
	53-80	Loam, sandy clay loam	CL, SC	A-6	0	0-7	97-100	90-96	75-90	35-50	22-35	7-16
Branstad--------	0-9	Fine sandy loam	SC-SM, SC, CL-ML	A-4	0	0-7	85-100	80-98	55-85	30-55	22-32	5-11
	9-14	Fine sandy loam, loam, sandy loam	CL, CL-ML, SC, SC-SM	A-2-4, A-4, A-6	0	0-7	85-100	80-98	45-95	25-75	21-34	6-16
	14-20	Fine sandy loam, sandy clay loam, loam, sandy loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	45-95	25-75	23-36	8-17
	20-45	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	45-55	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	55-68	Fine sandy loam, sandy clay loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	68-80	Fine sandy loam, loam, sandy clay loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
83A:												
Smestad---------	0-10	Loamy fine sand	SM, SC-SM	A-2-4	0	0	100	98-100	75-95	20-35	0-30	NP-7
	10-32	Loamy fine sand, fine sand	SM, SC-SM	A-2-4	0	0	100	98-100	75-95	20-35	0-24	NP-7
	32-37	Fine sandy loam, sandy loam	SC, SC-SM, SM	A-4	0	0	100	93-100	65-85	35-55	18-31	3-13
	37-57	Clay, silty clay	CH	A-7-6	0	0	100	98-100	95-100	90-95	68-88	44-59
	57-80	Clay, silty clay	CH	A-7-6	0	0	100	98-100	95-100	90-95	64-84	40-56
85B:												
Taylor----------	0-9	Loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-95	60-75	22-37	6-13
	9-14	Clay loam, loam	CL-ML, CL	A-6, A-7	0	0	100	100	85-100	70-90	23-51	6-29
	14-25	Clay	CH	A-7-6	0	0	100	100	90-100	65-100	68-92	44-63
	25-32	Clay, silty clay	CH	A-7-6	0	0	100	100	90-100	65-100	64-88	40-59
	32-60	Silty clay, clay	CH	A-7-6	0	0	100	100	90-100	65-100	60-88	37-59
85C:												
Taylor----------	0-9	Loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-95	60-75	22-37	6-13
	9-14	Clay loam, loam	CL-ML, CL	A-6, A-7	0	0	100	100	85-100	70-90	23-51	6-29
	14-25	Clay	CH	A-7-6	0	0	100	100	90-100	65-100	68-92	44-63
	25-32	Clay, silty clay	CH	A-7-6	0	0	100	100	90-100	65-100	64-88	40-59
	32-60	Clay, silty clay	CH	A-7-6	0	0	100	100	90-100	65-100	60-88	37-59
86A:												
Indus----------	0-9	Clay loam	CH, CL	A-7	0	0	100	97-100	90-100	70-80	39-58	19-28
	9-21	Clay	CH	A-7	0	0	100	97-100	90-100	75-95	71-97	45-64
	21-25	Clay	CH	A-7	0	0	100	97-100	90-100	75-95	67-97	41-64
	25-39	Clay, silty clay	CH	A-7	0	0	98-100	95-100	90-100	75-95	58-91	36-63
	39-60	Clay, silty clay	CH	A-7	0	0	98-100	95-100	90-100	75-95	58-91	36-63

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
86A:												
Alango----------	0-9	Clay loam	CH, CL	A-7	0	0	100	97-100	90-100	70-80	39-58	19-28
	9-10	Silty clay loam, silty clay	CH, CL	A-7	0	0	100	97-100	90-100	85-95	42-57	21-33
	10-28	Clay	CH	A-7	0	0	100	97-100	90-100	75-95	71-97	45-64
	28-60	Clay, silty clay	CH	A-7	0	0	100	97-100	90-100	75-95	61-97	37-64
	60-80	Clay, silty clay	CH	A-7	0	0	100	97-100	90-100	75-95	61-97	37-64
89A:												
Wildwood--------	0-12	Muck	PT	A-8	0	0	100	100	---	---	---	---
	12-17	Silty clay	CH	A-7	0	0	100	100	95-100	90-95	51-70	29-40
	17-24	Clay, silty clay	CH	A-7	0	0	100	100	90-100	75-95	67-86	44-59
	24-60	Clay, silty clay	CH	A-7	0	0	100	100	90-100	75-95	67-82	44-55
96B:												
Karlsborg-------	0-9	Sand	SM	A-2	0	0	95-100	95-100	50-70	5-15	17-25	2-4
	9-28	Sand	SM	A-2	0	0	95-100	95-100	50-70	5-15	0-21	NP-4
	28-48	Clay	CH	A-7	0	0	100	100	85-100	85-100	67-86	44-59
	48-80	Sand, fine sand, loamy fine sand	SM	A-2	0	0	100	100	50-70	5-25	0-19	NP-2
96C:												
Karlsborg-------	0-9	Sand	SM	A-2	0	0	95-100	95-100	50-70	5-15	17-25	2-4
	9-28	Sand	SM	A-2	0	0	95-100	95-100	50-70	5-15	0-21	NP-4
	28-48	Clay	CH	A-7	0	0	100	100	85-100	85-100	67-86	44-59
	48-80	Sand, fine sand, loamy fine sand	SM	A-2	0	0	100	100	50-70	5-25	0-19	NP-2
96D:												
Karlsborg-------	0-9	Sand	SM	A-2	0	0	95-100	95-100	50-70	5-15	17-25	2-4
	9-28	Sand	SM	A-2	0	0	95-100	95-100	50-70	5-15	0-21	NP-4
	28-48	Clay	CH	A-7	0	0	100	100	85-100	85-100	67-86	44-59
	48-80	Sand, fine sand, loamy fine sand	SM	A-2	0	0	100	100	50-70	5-25	0-19	NP-2

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
100B:												
Menahga---------	0-2	Sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP
100C:												
Menahga---------	0-1	Slightly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-2	Sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP
100D:												
Menahga---------	0-1	Slightly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-2	Sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP
120B:												
Kost----------	0-9	Fine sand	SM	A-2, A-3	0	0	100	100	65-80	5-35	0-22	NP-2
	9-25	Fine sand	SM	A-2, A-3	0	0	100	100	50-80	5-35	0-22	NP-2
	25-36	Sand, fine sand	SM, SP-SM	A-2, A-3	0	0	100	100	50-80	5-35	0-19	NP-2
	36-42	Fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	100	50-80	5-35	0-19	NP-2
	42-60	Sand, fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	50-80	5-30	0-19	NP-2

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
127D:												
Amery----------	0-3	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-75	25-40	0-23	NP-6
	3-22	Sandy loam, loam, gravelly loam, gravelly sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	55-100	50-90	50-75	25-45	0-23	NP-7
	22-34	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-40	0-23	NP-7
	34-41	Gravelly sandy loam, fine sandy loam, sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-40	0-23	NP-7
	41-57	Gravelly sandy loam, fine sandy loam, sandy loam	SC, SM	A-2-4, A-4, A-1-b	0-5	0-7	55-100	50-90	35-75	20-45	0-28	NP-9
	57-71	Sandy loam, fine sandy loam, gravelly sandy loam	SC, SM	A-2-4, A-4, A-1-b	0-5	0-7	55-100	50-90	35-75	20-45	0-28	NP-9
	71-80	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-45	0-23	NP-7

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
127D:												
Rosholt---------	0-4	Sandy loam	SM	A-2, A-4	1-5	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	4-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
127E:												
Amery----------	0-3	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-75	25-40	0-23	NP-6
	3-22	Sandy loam, loam, gravelly loam, gravelly sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	55-100	50-90	50-75	25-45	0-23	NP-7
	22-34	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-40	0-23	NP-7
	34-41	Gravelly sandy loam, fine sandy loam, sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-40	0-23	NP-7
	41-57	Gravelly sandy loam, fine sandy loam, sandy loam	SC, SM	A-2-4, A-4, A-1-b	0-5	0-7	55-100	50-90	35-75	20-45	0-28	NP-9
	57-71	Sandy loam, fine sandy loam, gravelly sandy loam	SC, SM	A-2-4, A-4, A-1-b	0-5	0-7	55-100	50-90	35-75	20-45	0-28	NP-9
	71-80	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-45	0-23	NP-7

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
127E:												
Rosholt---------	0-4	Sandy loam	SM	A-2, A-4	1-5	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	4-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-95	15-65	0-15	0-14	NP
151A:												
Bluffton--------	0-8	Loam	ML	A-4	0	0	90-100	85-100	75-95	55-75	27-47	6-15
	8-19	Loam, silt loam, sandy loam, sandy clay loam	SC-SM, CL-ML, CL, SC	A-2-6, A-6	0	0	90-100	85-100	55-100	25-90	22-35	6-15
	19-22	Fine sandy loam, sandy clay loam, loam	SC-SM, CL-ML, CL, SC	A-4, A-6	0	0	90-100	85-96	65-95	35-75	22-38	6-18
	22-26	Fine sandy loam, sandy clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-96	65-95	35-75	22-38	6-18
	26-38	Loam, sandy clay loam, fine sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-96	65-95	35-75	22-38	6-18
	38-60	Sandy clay loam, fine sandy loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-96	65-95	35-75	22-38	6-18

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
152A:												
Alstad----------	0-9	Loam	ML	A-4	0	0-4	85-100	80-98	65-95	50-75	21-40	3-12
	9-15	Fine sandy loam, loam	SC-SM, ML, SM	A-4	0	0-4	85-100	80-98	55-95	35-75	16-29	1-10
	15-18	Fine sandy loam, loam	SC-SM	A-4, A-6	0	0-4	85-100	80-98	55-95	35-75	25-38	8-18
	18-24	Sandy clay loam, loam, fine sandy loam, clay loam	SC-SM	A-6	0	0-4	85-100	80-98	55-95	35-80	26-42	10-21
	24-49	Sandy clay loam, fine sandy loam, loam, clay loam	SC-SM	A-2-6, A-6	0	0-4	85-100	80-98	55-95	30-80	29-44	12-23
	49-60	Fine sandy loam, loam	SC-SM	A-2-4	0	0-4	85-100	80-98	55-95	30-75	23-29	8-11

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
154E:												
Cushing---------	0-5	Fine sandy loam	ML	A-4	0	0-7	90-100	85-100	65-85	35-55	21-40	3-12
	5-15	Fine sandy loam, sandy loam, loam	SC-SM, ML, SM	A-2-4, A-4	0	0-7	90-100	85-100	55-95	30-75	16-29	1-10
	15-33	Sandy clay loam, fine sandy loam, loam, clay loam, sandy loam	SC-SM	A-2-4, A-2-6, A-4, A-6	0	0-7	90-100	85-100	55-95	30-80	25-40	8-19
	33-57	Loam, sandy clay loam, fine sandy loam, clay loam, sandy loam	SC-SM	A-2-6, A-6	0	0-7	90-100	85-100	55-95	30-80	29-42	12-21
	57-65	Fine sandy loam, sandy clay loam, loam, clay loam, sandy loam	SC-SM	A-2-6, A-6	0	0-7	90-100	85-100	55-95	30-80	29-42	12-21
	65-73	Fine sandy loam, sandy clay loam, loam, clay loam, sandy loam	SC-SM	A-2-6, A-6	0	0-7	90-100	85-100	55-95	30-80	29-42	12-21
	73-80	Fine sandy loam, loam	SC-SM	A-4, A-6	0	0-7	90-100	85-100	55-95	30-75	23-29	8-11

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
156B:												
Magnor, very stony----------	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	20-33	3-10
	4-11	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	16-27	2-8
	11-16	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	17-26	3-9
	16-21	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	18-27	3-10
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	SC-SM, CL-ML, CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	18-29	3-11
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	CL-ML, SC-SM, CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	18-29	3-11
	58-60	Fine sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2	0-5	0-7	55-100	50-90	30-60	15-30	0-26	NP-9
Magnor----------	0-8	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	20-34	3-11
	8-11	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	16-27	2-8
	11-16	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	17-26	3-9
	16-21	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	18-27	3-10
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	CL, ML, SC, SM, SC-SM, CL-ML	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	18-29	3-11
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	CL, ML, SC, SM, CL-ML, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	18-29	3-11
	58-60	Fine sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2	0-5	0-7	55-100	50-90	30-60	15-30	0-26	NP-9

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
157B:												
Freeon, very stony----------	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	20-34	3-11
	4-19	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	16-30	2-11
	19-39	Sandy loam, gravelly loam	CL-ML, SC-SM, CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	18-29	3-11
	39-53	Sandy loam, gravelly loam, fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-26	NP-9
	53-80	Sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2	0-5	0-7	60-100	50-90	30-90	15-35	0-26	NP-9
Freeon----------	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-7	90-100	85-100	80-100	70-90	20-34	3-11
	4-19	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	16-30	2-11
	19-39	Sandy loam, gravelly loam	CL, CL-ML, ML, SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	18-29	3-11
	39-53	Sandy loam, gravelly loam, fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-26	NP-9
	53-80	Sandy loam, gravelly fine sandy loam	SM, SC-SM	A-1, A-2	0-5	0-7	60-100	50-90	30-90	15-35	0-26	NP-9
157C:												
Freeon, very stony----------	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	20-34	3-11
	4-19	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	16-30	2-11
	19-39	Sandy loam, gravelly loam	CL, CL-ML, ML, SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	18-29	3-11
	39-53	Sandy loam, gravelly loam, fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-26	NP-9
	53-80	Sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2	0-5	0-7	60-100	50-90	30-90	15-35	0-26	NP-9

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
157C:												
Freeon----------	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-7	90-100	85-100	80-100	70-90	20-34	3-11
	4-19	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	16-30	2-11
	19-39	Sandy loam, gravelly loam	CL, CL-ML, ML, SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	18-29	3-11
	39-53	Sandy loam, gravelly loam, fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-26	NP-9
	53-80	Sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2	0-5	0-7	60-100	50-90	30-90	15-35	0-26	NP-9
160A:												
Oesterle--------	0-7	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-9	85-100	80-100	55-80	30-45	18-26	3-8
	7-11	Sandy loam, loam, gravelly fine sandy loam	SC, SM	A-2, A-4	0	0-9	75-100	70-100	50-80	25-45	18-26	3-8
	11-31	Sandy loam, gravelly loam, fine sandy loam	SC, SM	A-1, A-2, A-4	0	0-9	55-100	50-100	35-75	15-40	0-28	NP-9
	31-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-9	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
165B:												
Elderon---------	0-7	Sandy loam	SC, SC-SM, SM	A-2-4	0-2	3-25	85-100	75-93	45-65	25-35	18-31	2-10
	7-15	Very cobbly coarse sandy loam, very gravelly coarse sandy loam, very gravelly sandy loam, very cobbly sandy loam	GM, SC-SM, SM	A-1-b, A-2-4	0-5	15-55	30-60	25-55	15-35	10-15	16-27	2-10
	15-44	Extremely cobbly loamy coarse sand, very gravelly coarse sand, very cobbly sand, extremely gravelly loamy coarse sand, very gravelly loamy sand	SM, SC-SM, GM	A-1-b, A-2-4	0-5	15-55	30-60	25-55	15-25	1-15	0-22	NP-6
	44-60	Extremely cobbly coarse sand, very cobbly sand, very gravelly coarse sand, extremely gravelly sand	GW, GC-GM	A-1-b	0-5	15-55	30-60	25-55	15-25	0-10	0-20	NP-4

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
185B:												
Tradelake-------	0-9	Fine sandy loam	SC, SC-SM	A-4	0	0-5	95-100	90-100	50-100	35-55	22-37	6-13
	9-13	Fine sandy loam, sandy loam	SM, SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-55	16-23	2-5
	13-21	Fine sandy loam, sandy loam	SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-50	18-25	4-7
	21-25	Sandy loam, fine sandy loam	SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-50	18-25	4-7
	25-48	Clay, silty clay	CH	A-7-6	0	0	100	100	95-100	80-100	68-88	44-59
	48-52	Clay, silty clay	CH	A-7-6	0	0	100	100	95-100	80-100	68-88	44-59
	52-80	Sand, loamy sand	SM	A-2-4	0	0	90-100	85-100	55-70	5-15	0-21	NP-4
Taylor----------	0-9	Fine sandy loam	SC-SM, CL-ML, SC	A-4, A-6	0	0	100	100	70-95	25-70	22-35	6-13
	9-14	Clay loam, loam	CL-ML, CL	A-6, A-7	0	0	100	100	85-100	70-90	23-51	6-29
	14-25	Clay	CH	A-7-6	0	0	100	100	90-100	65-100	68-92	44-63
	25-32	Clay, silty clay	CH	A-7-6	0	0	100	100	90-100	65-100	64-88	40-59
	32-60	Clay, silty clay	CH	A-7-6	0	0	100	100	90-100	65-100	60-88	37-59
185C:												
Tradelake-------	0-9	Fine sandy loam	SC, SC-SM	A-4	0	0-5	95-100	90-100	50-100	35-55	22-37	6-13
	9-13	Fine sandy loam, sandy loam	SM, SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-55	16-23	2-5
	13-21	Fine sandy loam, sandy loam	SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-50	18-25	4-7
	21-25	Sandy loam, fine sandy loam	SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-50	18-25	4-7
	25-48	Clay, silty clay	CH	A-7-6	0	0	100	100	95-100	80-100	68-88	44-59
	48-52	Clay, silty clay	CH	A-7-6	0	0	100	100	95-100	80-100	68-88	44-59
	52-80	Sand, loamy sand	SM	A-2-4	0	0	90-100	85-100	55-70	5-15	0-21	NP-4

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
185C:												
Taylor----------	0-9	Fine sandy loam	SC-SM, CL-ML, SC	A-4, A-6	0	0	100	100	70-95	25-70	22-35	6-13
	9-14	Clay loam, fine sandy loam, loam	CL-ML, CL	A-6, A-7	0	0	100	100	90-100	25-90	21-47	6-28
	14-25	Clay	CH	A-7-6	0	0	100	100	90-100	65-100	63-85	43-61
	25-32	Clay, silty clay	CH	A-7-6	0	0	100	100	90-100	65-100	59-81	39-58
	32-60	Silty clay, clay	CH	A-7-6	0	0	100	100	90-100	65-100	54-81	35-58
185D:												
Tradelake-------	0-9	Fine sandy loam	SC, SC-SM	A-4	0	0-5	95-100	90-100	50-100	35-55	22-37	6-13
	9-13	Fine sandy loam, sandy loam	SM, SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-55	16-23	2-5
	13-21	Fine sandy loam, sandy loam	SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-50	18-25	4-7
	21-25	Sandy loam, fine sandy loam	SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-50	18-25	4-7
	25-48	Clay, silty clay	CH	A-7-6	0	0	100	100	95-100	80-100	68-88	44-59
	48-52	Clay, silty clay	CH	A-7-6	0	0	100	100	95-100	80-100	68-88	44-59
	52-80	Sand, loamy sand	SM	A-2-4	0	0	90-100	85-100	55-70	5-15	0-21	NP-4
Taylor----------	0-9	Fine sandy loam	SC-SM, CL-ML, SC	A-4, A-6	0	0	100	100	70-95	25-70	22-35	6-13
	9-14	Clay loam, fine sandy loam, loam	CL-ML, CL	A-6, A-7	0	0	100	100	90-100	25-90	21-47	6-28
	14-25	Clay	CH	A-7-6	0	0	100	100	90-100	65-100	63-85	43-61
	25-32	Clay, silty clay	CH	A-7-6	0	0	100	100	90-100	65-100	59-81	39-58
	32-60	Silty clay, clay	CH	A-7-6	0	0	100	100	90-100	65-100	54-81	35-58

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
185E:												
Tradelake-------	0-9	Fine sandy loam	SC, SC-SM	A-4	0	0-5	95-100	90-100	50-100	35-55	22-37	6-13
	9-13	Fine sandy loam, sandy loam	SM, SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-55	16-23	2-5
	13-21	Fine sandy loam, sandy loam	SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-50	18-25	4-7
	21-25	Sandy loam, fine sandy loam	SC-SM	A-2-4, A-4	0	0-5	95-100	90-100	75-100	25-50	18-25	4-7
	25-48	Clay, silty clay	CH	A-7-6	0	0	100	100	95-100	80-100	68-88	44-59
	48-52	Clay, silty clay	CH	A-7-6	0	0	100	100	95-100	80-100	68-88	44-59
	52-80	Sand, loamy sand	SM	A-2-4	0	0	90-100	85-100	55-70	5-15	0-21	NP-4
Taylor----------	0-9	Fine sandy loam	SC-SM, CL-ML, SC	A-4, A-6	0	0	100	100	70-95	25-70	22-35	6-13
	9-14	Clay loam, fine sandy loam, loam	CL-ML, CL	A-6, A-7	0	0	100	100	90-100	25-90	21-47	6-28
	14-25	Clay	CH	A-7-6	0	0	100	100	90-100	65-100	63-85	43-61
	25-32	Clay, silty clay	CH	A-7-6	0	0	100	100	90-100	65-100	59-81	39-58
	32-60	Silty clay, clay	CH	A-7-6	0	0	100	100	90-100	65-100	54-81	35-58

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
189A:												
Siren----------	0-9	Loam	CL, CL-ML	A-4, A-6	0	0-5	70-100	65-100	60-100	40-90	27-43	6-17
	9-13	Sandy loam, fine sandy loam, silt loam, loam	ML, SM, CL, CL-ML, SC, SC-SM	A-2-4, A-6, A-4	0	0-5	70-100	65-100	40-100	20-90	16-32	2-13
	13-20	Sandy clay loam, gravelly sandy clay loam, sandy loam, fine sandy loam, loam	SC-SM, CL, SC	A-2-4, A-4, A-6, A-7	0	0-5	70-100	65-100	40-100	20-55	24-43	9-25
	20-43	Clay, silty clay	CH, CL	A-7-6, A-7	0	0	100	100	95-100	75-95	49-68	29-44
	43-80	Clay, silty clay	CH, CL	A-7-6, A-7	0	0	100	100	90-100	75-95	49-68	29-44
193A:												
Minocqua--------	0-4	Muck	PT	A-8	0	0	100	100	100	100	---	NP
	4-15	Silt loam, loam, sandy loam, fine sandy loam, very fine sandy loam	CL, ML, SC, SM	A-2, A-4	0	0-7	80-100	75-100	45-100	25-90	0-35	NP-13
	15-28	Loam, gravelly sandy loam, fine sandy loam	CL, ML, SC, SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-95	15-80	0-28	NP-9
	28-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
337A:												
Plover----------	0-10	Fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	65-90	35-50	0-20	NP-4
	10-13	Fine sandy loam, sandy loam, silt loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	70-100	40-80	0-20	NP-5
	13-18	Fine sandy loam, sandy loam, silt loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	70-100	40-80	0-20	NP-5
	18-32	Fine sandy loam, sandy loam, loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	65-95	40-75	0-25	NP-7
	32-60	Stratified fine sand to silt	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	60-95	35-75	0-25	NP-7
368B:												
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SP-SM, SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
368B:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP
368C:												
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SP-SM, SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
368C:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP
368D:												
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SP-SM, SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
368D:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP
368E:												
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SP-SM, SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
368E:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP
380B:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
380B:												
Rosholt---------	0-8	Sandy loam	SM	A-2, A-4	0	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	8-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	15-65	0-15	0-14	NP
380C:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
380C:												
Rosholt---------	0-8	Sandy loam	SM	A-2, A-4	0	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	8-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	15-65	0-15	0-14	NP
380D:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
380D:												
Rosholt---------	0-8	Sandy loam	SM	A-2, A-4	0	0-3	80-100	75-100	50-75	25-40	0-21	NP-4
	8-10	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	10-14	Sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-75	15-40	0-23	NP-6
	14-28	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1, A-2, A-4	0	0-3	55-100	50-100	35-80	20-45	0-26	NP-8
	28-34	Gravelly loamy sand, very gravelly coarse sand, sand	GM, GP-GM, SM, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	20-80	5-25	0-23	NP-6
	34-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-25	30-100	25-100	15-65	0-15	0-14	NP
383B:												
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SP-SM, SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
383C:												
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SP-SM, SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6
383D:												
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SP-SM, SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
392C:												
Rockmarsh-------	0-1	Cobbly mucky peat	PT	A-8	0-15	15-50	100	100	---	---	---	---
	1-8	Very cobbly silt loam	CL, CL-ML, ML	A-4, A-6	0-15	15-50	25-65	20-60	20-60	15-55	18-39	2-17
	8-23	Extremely gravelly loamy coarse sand, very gravelly loamy coarse sand, very gravelly loamy sand, extremely cobbly loamy sand, very cobbly loamy coarse sand	GC-GM, GM, SC-SM, SM	A-2-4, A-1-a	0-15	15-50	25-65	20-60	15-45	1-20	0-24	NP-6
	23-46	Extremely gravelly sandy clay loam, very cobbly sandy loam, extremely cobbly coarse sandy loam, very gravelly sandy clay loam	SC, SC-SM	A-2	0-15	15-50	25-65	20-60	15-55	5-35	20-43	6-25
	46-80	Extremely cobbly sandy loam, extremely gravelly sandy loam, very gravelly loam, extremely gravelly fine sandy loam, very cobbly fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-6, A-4, A-2-4	0-15	15-50	15-95	10-90	5-85	1-70	16-30	2-13

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
392C:												
Dairyland-------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-7	Cobbly sandy loam	SM, SC-SM	A-2-4	0-7	15-50	15-60	10-55	5-35	1-20	18-35	2-13
	7-14	Very gravelly loamy sand, extremely gravelly loamy coarse sand, extremely cobbly loamy sand, very cobbly loamy coarse sand	SM, SC-SM, SC	A-2-4, A-1-b	0-7	15-50	15-60	10-55	5-30	1-15	0-28	NP-10
	14-36	Very gravelly loamy sand, very cobbly loamy sand, extremely cobbly loamy coarse sand, extremely gravelly loamy sand, very cobbly loamy coarse sand	GM	A-2-4	0-7	15-50	15-60	10-55	5-30	1-15	0-26	NP-10
	36-49	Extremely gravelly loamy sand, very cobbly loamy sand, extremely cobbly loamy coarse sand, very gravelly loamy sand, very cobbly loamy coarse sand	GM	A-2-4	0-7	15-50	15-60	10-55	5-30	1-15	0-26	NP-10
	49-80	Sandy loam, cobbly fine sandy loam, extremely gravelly loam, extremely cobbly sandy clay loam, very gravelly clay loam	SC, SC-SM, ML, SM, CL-ML, CL	A-2-4, A-6, A-4	0-15	7-30	25-95	20-90	15-80	5-50	16-39	2-21

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
392C:												
Makwa----------	0-8	Stony muck	PT	A-8	7-25	0-25	80-100	75-100	---	---	---	---
	8-16	Very gravelly loam, very cobbly silt loam, extremely gravelly sandy loam, very gravelly sandy loam, extremely cobbly silt loam	SM, ML	A-2, A-4	7-16	0-37	21-67	18-66	16-63	12-52	25-48	2-9
	16-43	Stratified extremely gravelly coarse sandy loam to extremely gravelly sandy clay loam	GC, GM, GC-GM	A-1, A-2-4	6-15	13-26	11-44	8-42	---	---	17-36	3-17
	43-65	Extremely gravelly sandy loam, extremely cobbly sandy clay loam, extremely cobbly sandy loam, extremely gravelly sandy clay loam	GC, GM, GC-GM	A-1, A-2-6, A-2-4	6-15	12-36	13-61	9-60	7-57	3-33	17-40	3-21
	65-80	Stratified silt loam to silty clay	CL, CH	A-6, A-7	0	0	100	100	90-100	70-95	29-57	13-36
396B:												
Friendship------	0-4	Sand	SM		0	0	95-100	90-100	60-75	5-15	0-23	NP-3
	4-29	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-20	NP-4
	29-60	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-18	NP-1
Wurtsmith-------	0-6	Sand	SM	A-2, A-3	0	0	85-100	75-100	50-70	5-15	0-14	NP
	6-33	Sand	SM	A-2, A-3	0	0	85-100	75-100	50-70	5-15	0-14	NP
	33-60	Sand	SM	A-2, A-3	0	0	85-100	75-100	50-70	5-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
396B:												
Grayling--------	0-3	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	3-15	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	15-23	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	23-60	Sand	SM	A-3, A-2	0	0	95-100	90-100	60-75	5-15	0-14	NP
397A:												
Perchlake-------	0-9	Loamy fine sand	SM	A-2-4	0	0	90-100	85-100	75-95	20-30	0-17	NP-5
	9-18	Fine sand, sand, loamy fine sand, loamy sand	SM, SP-SM	A-2-4	0	0	90-100	85-100	75-95	10-15	0-17	NP-5
	18-42	Sand, loamy sand, loamy fine sand, fine sand	SM, SP-SM	A-2-4	0	0	90-100	85-100	40-55	10-20	0-17	NP-5
	42-46	Fine sandy loam, sandy loam, loam	SC-SM, SM	A-4	0	0	90-100	85-100	70-90	35-45	0-26	NP-7
	46-60	Sand, fine sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-70	5-15	0-17	NP-5
399B:												
Grayling--------	0-3	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	3-15	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	15-23	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	23-60	Sand	SM	A-3, A-2	0	0	95-100	90-100	60-75	5-15	0-14	NP
399C:												
Grayling--------	0-3	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	3-15	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	15-23	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	23-60	Sand	SM	A-3, A-2	0	0	95-100	90-100	60-75	5-15	0-14	NP
399D:												
Grayling--------	0-3	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	3-15	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	15-23	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP
	23-60	Sand	SM	A-3, A-2	0	0	95-100	90-100	60-75	5-15	0-14	NP
406A:												
Loxley----------	0-13	Mucky peat	PT	A-8	0	0	100	100	100	100	---	NP
	13-60	Muck	PT	A-8	0	0	100	100	100	100	---	NP
407A:												
Seelyeville-----	0-80	Muck	PT	A-8	0	0	100	100	100	100	---	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
407A:												
Markey----------	0-32	Muck	PT	A-8	0	0	100	100	---	---	---	---
	32-60	Sand, fine sand, loamy sand, gravelly sand	SP-SM, SM	A-1, A-2, A-3	0	0	70-100	50-100	30-65	5-15	0-23	NP-6
410A:												
Seelyeville-----	0-80	Muck	PT	A-8	0	0	100	100	100	100	0-0	NP
Cathro----------	0-28	Muck	PT	A-8	0	0	100	100	---	---	---	---
	28-49	Loam, silty clay loam, sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	6-21
	49-60	Sandy loam, silty clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	6-21
419A:												
Seelyeville-----	0-80	Muck	PT	A-8	0	0	100	100	100	100	---	NP
Cathro----------	0-28	Muck	PT	A-8	0	0	100	100	---	---	---	---
	28-49	Loam, silty clay loam, sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	6-21
	49-60	Sandy loam, silty clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	6-21
Markey----------	0-32	Muck	PT	A-8	0	0	100	100	---	---	---	---
	32-60	Sand, fine sand, loamy sand, gravelly sand	SP-SM, SM	A-1, A-2, A-3	0	0	70-100	50-100	30-65	5-15	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
421A:												
Dora----------	0-12	Mucky peat	PT	A-8	0	0	100	100	---	---	---	---
	12-32	Muck	PT	A-8	0	0	100	100	---	---	---	---
	32-36	Mucky silty clay loam	MH	A-7	0	0	100	100	95-100	85-95	70-102	18-26
	36-42	Silty clay loam, silty clay, clay, clay loam	CL, CH	A-6	0	0	100	100	90-100	70-95	37-57	21-36
	42-60	Silty clay, silty clay loam, clay, clay loam	CL, CH	A-6	0	0	100	100	90-100	70-95	37-57	21-36
Markey----------	0-32	Muck	PT	A-8	0	0	100	100	---	---	---	---
	32-60	Sand, fine sand, loamy sand, gravelly sand	SC-SM, SM	A-1, A-2, A-3	0	0	70-100	50-100	30-65	5-15	0-23	NP-6
Seelyeville-----	0-80	Muck	PT	A-8	0	0	100	100	100	100	---	NP
422A:												
Seelyeville-----	0-80	Muck	PT	A-8	0	0	100	100	100	100	---	NP
Cathro----------	0-28	Muck	PT	A-8	0	0	100	100	---	---	---	---
	28-49	Loam, silty clay loam, sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	6-21
	49-60	Sandy loam, silty clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	6-21
Rondeau---------	0-44	Muck	PT	A-8	0	0	100	100	---	---	---	---
	44-60	Marl	OH, MH	A-5, A-7, A-8	0	0	100	95-100	80-90	60-80	16-24	2-9

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
426B:												
Emmert----------	0-1	Loamy sand	SM, SC-SM	A-2-4	0-2	0-15	80-100	75-100	40-70	15-25	0-24	NP-6
	1-5	Gravelly loamy coarse sand, very gravelly sand, very gravelly coarse sand, gravelly loamy sand	GW, GM, SM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-23	NP-6
	5-24	Very gravelly coarse sand, gravelly loamy sand, very gravelly sand, gravelly loamy coarse sand	GW, SM, GM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-22	NP-6
	24-60	Very gravelly coarse sand, very gravelly sand	GW	A-1	0-2	0-15	30-55	25-50	10-30	0-5	0-16	NP-1
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SM, SP-SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6
Menahga---------	0-1	Slightly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-2	Loamy sand	SM	A-2	0	0	95-100	80-100	40-75	15-30	0-26	NP-6
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
426C:												
Emmert----------	0-1	Loamy sand	SC-SM, SM	A-2-4	0-2	0-15	80-100	75-100	40-70	15-25	0-24	NP-6
	1-5	Gravelly loamy coarse sand, very gravelly sand, very gravelly coarse sand, gravelly loamy sand	GW, GM, SM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-23	NP-6
	5-24	Very gravelly coarse sand, gravelly loamy sand, very gravelly sand, gravelly loamy coarse sand	GW, SM, GM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-22	NP-6
	24-60	Very gravelly coarse sand, very gravelly sand	GW	A-1	0-2	0-15	30-55	25-50	10-30	0-5	0-16	NP-1
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SM, SP-SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6
Menahga---------	0-1	Slightly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-2	Loamy sand	SM	A-2	0	0	95-100	80-100	40-75	15-30	0-26	NP-6
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
426D:												
Emmert----------	0-1	Loamy sand	SC-SM, SM	A-2-4	0-2	0-15	80-100	75-100	40-70	15-25	0-24	NP-6
	1-5	Gravelly loamy coarse sand, very gravelly sand, very gravelly coarse sand, gravelly loamy sand	GW, GM, SM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-23	NP-6
	5-24	Very gravelly coarse sand, gravelly loamy sand, very gravelly sand, gravelly loamy coarse sand	GW, SM, GM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-22	NP-6
	24-60	Very gravelly coarse sand, very gravelly sand	GW	A-1	0-2	0-15	30-55	25-50	10-30	0-5	0-16	NP-1
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SM, SP-SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-3, A-1, A-2	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6
Menahga---------	0-1	Slightly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-2	Loamy sand	SM	A-2	0	0	95-100	80-100	40-75	15-30	0-26	NP-6
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
430A:												
Freya----------	0-11	Loamy fine sand	SC-SM	A-2-4	0	0	100	100	60-95	15-30	0-26	NP-6
	11-32	Fine sand, loamy fine sand	SC-SM, SM, SP-SM	A-2-4	0	0	100	100	60-95	10-35	0-23	NP-6
	32-47	Loamy fine sand, fine sand	SC-SM, SM	A-2-4	0	0	100	93-100	60-95	15-35	0-23	NP-6
	47-66	Clay	CH	A-7-6, A-7	0	0	100	93-100	90-100	75-95	67-86	44-59
	66-72	Clay	CH	A-7, A-7-6	0	0	100	93-100	90-100	75-95	67-86	44-59
	72-80	Clay, silty clay	CH	A-7, A-7-6	0	0	100	93-100	90-100	75-95	58-86	36-59
439B:												
Graycalm--------	0-3	Loamy sand	SM	A-2	0	0-5	95-100	80-100	40-75	15-30	0-26	NP-6
	3-22	Sand, loamy sand	SM, SP-SM	A-2	0	0-5	95-100	80-100	40-75	5-30	0-23	NP-6
	22-35	Sand, loamy sand	SM	A-2, A-3	0	0-5	95-100	80-100	40-75	5-30	0-23	NP-6
	35-60	Stratified sand to loamy sand	SM	A-2, A-3	0	0-5	95-100	80-100	40-80	5-30	0-27	NP-10
Menahga---------	0-1	Slightly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-2	Loamy sand	SM	A-2	0	0	95-100	80-100	40-75	15-30	0-26	NP-6
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP
439C:												
Graycalm--------	0-3	Loamy sand	SM	A-2	0	0-5	95-100	80-100	40-75	15-30	0-26	NP-6
	3-22	Sand, loamy sand	SM, SP-SM	A-2	0	0-5	95-100	80-100	40-75	5-30	0-23	NP-6
	22-35	Sand, loamy sand	SM	A-2, A-3	0	0-5	95-100	80-100	40-75	5-30	0-23	NP-6
	35-60	Stratified sand to loamy sand	SM	A-2, A-3	0	0-5	95-100	80-100	40-80	5-30	0-27	NP-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
439C:												
Menahga---------	0-1	Slightly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-2	Loamy sand	SM	A-2	0	0	95-100	80-100	40-75	15-30	0-26	NP-6
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP
439D:												
Graycalm--------	0-3	Loamy sand	SM	A-2	0	0-5	95-100	80-100	40-75	15-30	0-26	NP-6
	3-22	Sand, loamy sand	SM, SP-SM	A-2	0	0-5	95-100	80-100	40-75	5-30	0-23	NP-6
	22-35	Sand, loamy sand	SM	A-2, A-3	0	0-5	95-100	80-100	40-75	5-30	0-23	NP-6
	35-60	Stratified sand to loamy sand	SM	A-2, A-3	0	0-5	95-100	80-100	40-80	5-30	0-27	NP-10
Menahga---------	0-1	Slightly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-2	Loamy sand	SM	A-2	0	0	95-100	80-100	40-75	15-30	0-26	NP-6
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
442C:												
Haugen----------	0-4	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-70	20-40	19-32	3-9
	4-15	Sandy loam, gravelly sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-85	15-65	16-28	1-9
	15-23	Gravelly sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-28	1-9
	23-35	Gravelly sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-27	2-10
	35-49	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM	A-2, A-4, A-1	0-5	0-7	55-100	50-90	35-75	15-45	17-28	3-10
	49-79	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	35-75	15-45	18-30	4-12
	79-80	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	17-27	3-10
Greenwood-------	0-6	Peat	PT	A-8	0	0	100	100	100	100	---	NP
	6-60	Mucky peat	PT	A-8	0	0	100	100	100	100	---	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
443D:												
Amery----------	0-3	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-75	25-40	17-30	1-7
	3-22	Sandy loam, loam, gravelly loam, gravelly sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	55-100	50-90	50-75	25-45	15-27	1-10
	22-34	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-40	15-26	1-9
	34-41	Gravelly sandy loam, fine sandy loam, sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-40	15-27	1-10
	41-57	Gravelly sandy loam, fine sandy loam, sandy loam	SC, SM	A-2-4, A-4, A-1-b	0-5	0-7	55-100	50-90	35-75	20-45	17-29	3-11
	57-71	Sandy loam, fine sandy loam, gravelly sandy loam	SC, SM	A-2-4, A-4, A-1-b	0-5	0-7	55-100	50-90	35-75	20-45	17-29	3-11
	71-80	Sandy loam, fine sandy loam, gravelly sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-100	50-90	35-75	15-45	15-27	1-10
Greenwood-------	0-6	Peat	PT	A-8	0	0	100	100	100	100	---	NP
	6-60	Mucky peat	PT	A-8	0	0	100	100	100	100	---	NP
459A:												
Loxley----------	0-13	Mucky peat	PT	A-8	0	0	100	100	100	100	---	NP
	13-60	Muck	PT	A-8	0	0	100	100	100	100	---	NP
Daisybay--------	0-7	Peat	PT	A-8	0	0	100	100	---	---	---	---
	7-30	Mucky peat	PT	A-8	0	0	100	100	---	---	---	---
	30-35	Muck	PT	A-8	0	0	100	100	---	---	---	---
	35-80	Clay, silty clay, silty clay loam, clay loam	CH, CL	A-7	0	0-3	90-100	90-100	80-100	65-95	45-61	25-37

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
459A:												
Dawson----------	0-8	Peat	PT	A-8	0	0	100	100	---	---	---	---
	8-38	Muck	PT	A-8	0	0	100	100	---	---	---	---
	38-40	Silt loam, loam, fine sand, mucky sand	SM, ML, CL-ML	A-2-4, A-4	0	0	100	100	70-100	15-90	0-59	NP-9
	40-60	Sand, gravelly sand, very gravelly very fine sand	GP, SM, SP, SP-SM	A-1, A-2, A-3, A-4	0	0	45-100	35-100	15-90	0-45	0-23	NP-6
461A:												
Bowstring-------	0-38	Muck	PT	A-8	0	0	100	100	---	---	---	---
	38-47	Fine sand, sand, loamy sand	SP-SM, SM	A-2	0	0	100	100	85-95	10-20	0-19	NP
	47-80	Muck	PT	A-8	0	0	100	100	---	---	---	---
465A:												
Newson----------	0-3	Muck	PT	A-8	0	0	100	100	---	---	---	NP
	3-8	Loamy sand, mucky sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
	8-16	Sand, loamy sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
	16-22	Sand, loamy sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
	22-60	Sand, loamy sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
Meehan----------	0-4	Sand	SM	A-2	0	0	95-100	90-100	60-75	5-15	0-14	NP-1
	4-29	Sand	SM	A-2	0	0	95-100	90-100	60-75	5-15	0-14	NP-1
	29-60	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP-1

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
469E:												
Bigisland-------	0-3	Cobbly loamy sand	SM, SC-SM	A-8, A-2-4	0-15	15-50	15-65	10-60	5-45	0-20	0-26	NP-6
	3-13	Very cobbly sand, cobbly loamy coarse sand, sand, extremely gravelly loamy sand, gravelly sand	GM, GP, SM, SC-SM, SP, SP-SM, GC-GM, GP-GM	A-1-b, A-2-4	0-15	15-50	15-65	10-60	5-45	0-20	0-24	NP-6
	13-25	Very gravelly loamy sand, extremely gravelly loamy coarse sand, very cobbly loamy sand, extremely cobbly loamy sand, very cobbly loamy coarse sand	GC-GM, GM, GP, GP-GM, SC-SM, SM, SP, SP-SM	A-1-b, A-2-4	0-15	15-50	15-65	10-60	5-45	0-20	0-24	NP-6
	25-47	Stratified gravelly sand to sand, very cobbly sand, cobbly loamy coarse sand, extremely cobbly loamy sand, extremely gravelly sand	GC-GM, GM, GP, GP-GM, SC-SM, SM, SP, SP-SM	A-1-b, A-2-4	0-15	15-50	15-65	10-60	5-45	0-20	0-24	NP-6
	47-56	Extremely gravelly loamy coarse sand, very gravelly loamy sand, very cobbly loamy sand, extremely cobbly loamy sand, very cobbly loamy coarse sand	GC-GM, GM, GP, GP-GM, SC-SM, SM, SP, SP-SM	A-1-b, A-2-4	0-15	15-50	15-65	10-60	5-45	0-20	0-24	NP-6
	56-80	Extremely gravelly coarse sandy loam, cobbly fine sandy loam, gravelly loam, very cobbly clay loam, extremely cobbly sandy clay loam	SC, SM, CL, CL-ML, ML, SP-SC	A-2-4, A-6, A-4, A-7, A-1-a	0-15	7-30	15-85	10-80	5-75	5-65	16-44	2-25

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
469E:												
Milaca----------	0-4	Sandy loam	SM, SC-SM, SC	A-4	0-2	0-3	90-100	85-98	55-70	25-40	18-35	2-10
	4-13	Fine sandy loam, sandy loam	CL-ML, ML, SC-SM	A-4	0-2	0-3	90-100	85-98	55-95	25-75	17-28	2-7
	13-17	Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-2	0-2	0-3	90-100	85-98	55-95	25-75	18-30	4-12
	17-43	Sandy loam, fine sandy loam, loam	CL, SC	A-2, A-4	0-2	0-3	90-100	85-98	55-95	25-75	20-30	6-12
	43-80	Sandy loam, fine sandy loam	SC, SC-SM, SM	A-2	0-2	2-3	90-100	85-98	55-85	25-55	16-28	2-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
471B:												
Dairyland-------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-7	Cobbly sandy loam	SM, SC-SM	A-2-4	0-7	15-50	15-60	10-55	5-35	1-20	18-35	2-13
	7-14	Very gravelly loamy sand, extremely gravelly loamy coarse sand, extremely cobbly loamy sand, very cobbly loamy coarse sand	SM, SC-SM, SC	A-2-4, A-1-b	0-7	15-50	15-60	10-55	5-30	1-15	0-28	NP-10
	14-36	Very gravelly loamy sand, very cobbly loamy sand, extremely cobbly loamy coarse sand, extremely gravelly loamy sand, very cobbly loamy coarse sand	GM	A-2-4	0-7	15-50	15-60	10-55	5-30	1-15	0-26	NP-10
	36-49	Extremely gravelly loamy sand, very cobbly loamy sand, extremely cobbly loamy coarse sand, very gravelly loamy sand, very cobbly loamy coarse sand	GM	A-2-4	0-7	15-50	15-60	10-55	5-30	1-15	0-26	NP-10
	49-80	Sandy loam, cobbly fine sandy loam, extremely gravelly loam, extremely cobbly sandy clay loam, very gravelly clay loam	SC, SC-SM, ML, SM, CL-ML, CL	A-2-4, A-6, A-4	0-15	7-30	25-95	20-90	15-80	5-50	16-39	2-21

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
471B:												
Emmert----------	0-1	Gravelly coarse sandy loam	SM, SC-SM	A-2-4	0-2	0-15	55-80	50-75	25-40	15-20	0-24	NP-6
	1-5	Gravelly loamy coarse sand, very gravelly sand, very gravelly coarse sand, gravelly loamy sand	GW, GM, SM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-23	NP-6
	5-24	Very gravelly coarse sand, gravelly loamy sand, very gravelly sand, gravelly loamy coarse sand	GW, SM, GM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-22	NP-6
	24-60	Very gravelly coarse sand, very gravelly sand	GW	A-1	0-2	0-15	30-55	25-50	10-30	0-5	0-16	NP-1

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
471C:												
Dairyland-------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-7	Very cobbly loamy sand	SM, SC-SM	A-2-4	0-7	15-50	15-60	10-55	5-30	1-15	0-28	NP-7
	7-14	Very gravelly loamy sand, extremely gravelly loamy coarse sand, extremely cobbly loamy sand, very cobbly loamy coarse sand	SM, SC-SM, SC	A-2-4, A-1-b	0-7	15-50	15-60	10-55	5-30	1-15	0-28	NP-10
	14-36	Very gravelly loamy sand, very cobbly loamy sand, extremely cobbly loamy coarse sand, extremely gravelly loamy sand, very cobbly loamy coarse sand	GM	A-2-4	0-7	15-50	15-60	10-55	5-30	1-15	0-26	NP-10
	36-49	Extremely gravelly loamy sand, very cobbly loamy sand, extremely cobbly loamy coarse sand, very gravelly loamy sand, very cobbly loamy coarse sand	GM	A-2-4	0-7	15-50	15-60	10-55	5-30	1-15	0-26	NP-10
	49-80	Sandy loam, cobbly fine sandy loam, extremely gravelly loam, extremely cobbly sandy clay loam, very gravelly clay loam	SC, SC-SM, ML, SM, CL-ML, CL	A-2-4, A-6, A-4	0-15	7-30	25-95	20-90	15-80	5-50	16-39	2-21

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
471C:												
Emmert----------	0-1	Loamy sand	SC-SM, SM	A-2-4	0-2	0-15	80-100	75-100	40-70	15-25	0-24	NP-6
	1-5	Gravelly loamy coarse sand, very gravelly sand, very gravelly coarse sand, gravelly loamy sand	GW, GM, SM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-23	NP-6
	5-24	Very gravelly coarse sand, gravelly loamy sand, very gravelly sand, gravelly loamy coarse sand	GW, SM, GM	A-2, A-1	0-2	0-15	30-55	25-50	15-30	1-20	0-22	NP-6
	24-60	Very gravelly coarse sand, very gravelly sand	GW	A-1	0-2	0-15	30-55	25-50	10-30	0-5	0-16	NP-1

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
472A:												
Rockmarsh-------	0-1	Cobbly mucky peat	PT	A-8	0-15	15-50	100	100	---	---	---	---
	1-8	Very cobbly silt loam	CL, CL-ML, ML	A-4, A-6	0-15	15-50	25-65	20-60	20-60	15-55	18-39	2-17
	8-23	Extremely gravelly loamy coarse sand, very gravelly loamy coarse sand, very gravelly loamy sand, extremely cobbly loamy sand, very cobbly loamy coarse sand	GC-GM, GM, SC-SM, SM	A-2-4, A-1-a	0-15	15-50	25-65	20-60	15-45	1-20	0-24	NP-6
	23-46	Extremely gravelly sandy clay loam, very cobbly sandy loam, extremely cobbly coarse sandy loam, very gravelly sandy clay loam	SC, SC-SM	A-2	0-15	15-50	25-65	20-60	15-55	5-35	20-43	6-25
	46-80	Extremely cobbly sandy loam, extremely gravelly sandy loam, very gravelly loam, extremely gravelly fine sandy loam, very cobbly fine sandy loam	CL, CL-ML, ML, SC, SC-SM, SM	A-6, A-4, A-2-4	0-15	15-50	15-95	10-90	5-85	1-70	16-30	2-13

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
472A:												
Clemens---------	0-2	Highly decomposed plant material	PT	A-8	1-5	0	100	100	---	---	---	---
	2-7	Extremely gravelly loam	SC	A-4, A-6, A-2-4	0-7	15-50	15-65	10-60	10-55	5-45	21-37	6-17
	7-10	Very gravelly loam, very cobbly sandy loam, extremely gravelly coarse sandy loam, gravelly loam, extremely cobbly loam		A-1-b, A-2-4, A-6, A-4	0-7	15-50	15-65	10-60	5-55	0-45	0-37	NP-17
	10-13	Very gravelly coarse sandy loam, very cobbly sandy loam, extremely gravelly coarse sandy loam, gravelly loam, extremely cobbly loam	GM, GP-GM, SM, SP-SM, SC	A-2-4, A-6, A-4, A-1-b	0-7	15-50	15-65	10-60	5-55	5-45	0-37	NP-17
	13-32	Very gravelly coarse sandy loam, very cobbly sandy loam, extremely gravelly coarse sandy loam, gravelly loam, extremely cobbly loam	GM, GP-GM, SM, SP-SM, SC	A-4, A-6, A-2-4, A-1-b	0-7	15-50	15-65	10-60	5-55	5-45	0-30	NP-11
	32-46	Extremely gravelly coarse sandy loam, very cobbly sandy loam, very gravelly coarse sandy loam, gravelly loam, extremely cobbly loam	GM, GP-GM, SC, SP-SM, SM, SP-SC	A-1-b, A-4, A-6, A-2-4	0-7	15-50	15-65	10-60	5-55	5-45	0-30	NP-11
	46-80	Extremely gravelly loamy coarse sand, very cobbly loamy sand, very gravelly loamy sand, gravelly loamy coarse sand, extremely cobbly loamy sand	SM, SC-SM	A-2-4, A-1-a	0-7	15-50	15-65	10-60	5-45	0-20	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
473A:												
Dairyland-------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-7	Cobbly sandy loam	SM, SC-SM	A-2-4	0-7	15-50	15-60	10-55	5-35	1-20	18-35	2-13
	7-14	Very gravelly loamy sand, extremely gravelly loamy coarse sand, extremely cobbly loamy sand, very cobbly loamy coarse sand	SM, SC-SM, SC	A-2-4, A-1-b	0-7	15-50	15-60	10-55	5-30	1-15	0-28	NP-10
	14-36	Very gravelly loamy sand, very cobbly loamy sand, extremely cobbly loamy coarse sand, extremely gravelly loamy sand, very cobbly loamy coarse sand	GM	A-2-4	0-7	15-50	15-60	10-55	5-30	1-15	0-26	NP-10
	36-49	Extremely gravelly loamy sand, very cobbly loamy sand, extremely cobbly loamy coarse sand, very gravelly loamy sand, very cobbly loamy coarse sand	GM	A-2-4	0-7	15-50	15-60	10-55	5-30	1-15	0-26	NP-10
	49-80	Sandy loam, cobbly fine sandy loam, extremely gravelly loam, extremely cobbly sandy clay loam, very gravelly clay loam	SC, SC-SM, ML, SM, CL-ML, CL	A-2-4, A-6, A-4	0-15	7-30	25-95	20-90	15-80	5-50	16-39	2-21

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
473A:												
Skog----------	0-1	Highly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-6	Gravelly sandy loam	SC-SM, SC	A-2-4	0-7	0-25	20-70	15-65	10-40	5-25	22-32	6-11
	6-11	Gravelly sandy loam, very gravelly loamy sand, gravelly loamy sand, very gravelly sandy loam	SC, SC-SM, GC-GM, SM, GM, GC	A-2-4	0-7	0-25	20-70	15-65	5-40	1-25	0-30	NP-11
	11-27	Extremely gravelly loamy sand, very gravelly loamy sand, very gravelly loamy coarse sand, extremely gravelly loamy coarse sand	SP, SP-SM	A-2, A-1	0-7	0-25	15-55	10-50	5-35	1-20	0-25	NP-7
	27-38	Extremely gravelly coarse sand, very gravelly coarse sand, extremely gravelly loamy coarse sand, extremely gravelly loamy sand, very gravelly loamy coarse sand	SP, SP-SM	A-2, A-1	0-7	0-25	15-55	10-50	5-35	1-20	0-25	NP-7
	38-80	Extremely gravelly coarse sand, very gravelly coarse sand, very gravelly sand, extremely gravelly sand	SP, SP-SM	A-1	0-7	0-25	15-55	10-50	5-25	0-5	0-18	NP-2

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
484A:												
Greenwood-------	0-6	Peat	PT	A-8	0	0	100	100	100	100	---	NP
	6-60	Mucky peat	PT	A-8	0	0	100	100	100	100	---	NP
Beseman---------	0-36	Muck	PT	A-8	0	0	100	100	---	---	---	---
	36-60	Silt loam, loam, sandy loam	CL, CL-ML, SC-SM	A-4, A-2-4	0	0-2	80-100	65-100	40-100	25-90	20-33	4-13
485C:												
Lupton----------	0-65	Muck	PT	A-8	0	0	100	100	100	100	---	NP
Tawas----------	0-31	Muck	PT	A-8	0	0	100	100	---	---	---	---
	31-60	Fine sand, coarse sand, loamy sand, sand, loamy fine sand, gravelly sand	SM, SP-SM, SC-SM	A-2-4	0	0	100	70-100	65-90	10-30	0-23	NP-6
495B:												
Karlsborg-------	0-9	Loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	9-28	Sand, loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	28-48	Clay	CH	A-7	0	0	100	100	85-100	85-100	64-90	40-60
	48-80	Sand	SM	A-2	0	0	100	100	50-70	5-15	0-19	NP-2
Grettum---------	0-3	Loamy sand	SC-SM, SM	A-2-4	0	0	90-100	85-100	60-80	15-25	0-23	NP-6
	3-32	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	32-75	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	75-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-21	NP-4
Perida----------	0-9	Loamy sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	9-43	Sand, loamy sand, fine sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	43-45	Loamy sand, sand, fine sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	45-60	Clay, silty clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	60-74	Silty clay, clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	74-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
495C:												
Karlsborg-------	0-9	Loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	9-28	Sand, loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	28-48	Clay	CH	A-7	0	0	100	100	85-100	85-100	64-90	40-60
	48-80	Sand	SM	A-2	0	0	100	100	50-70	5-15	0-19	NP-2
Grettum---------	0-3	Loamy sand	SC-SM, SM	A-2-4	0	0	90-100	85-100	60-80	15-25	0-23	NP-6
	3-32	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	32-75	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	75-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-21	NP-4
Perida----------	0-9	Loamy sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	9-43	Sand, loamy sand, fine sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	43-45	Loamy sand, sand, fine sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	45-60	Clay, silty clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	60-74	Silty clay, clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	74-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-14	NP
495D:												
Karlsborg-------	0-9	Loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	9-28	Sand, loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	28-48	Clay	CH	A-7	0	0	100	100	85-100	85-100	64-90	40-60
	48-80	Sand	SM	A-2	0	0	100	100	50-70	5-15	0-19	NP-2
Grettum---------	0-3	Loamy sand	SC-SM, SM	A-2-4	0	0	90-100	85-100	60-80	15-25	0-23	NP-6
	3-32	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	32-75	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	75-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-21	NP-4

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
495D:												
Perida----------	0-9	Loamy sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	9-43	Sand, loamy sand, fine sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	43-45	Loamy sand, sand, fine sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	45-60	Clay, silty clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	60-74	Silty clay, clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	74-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-14	NP
496B:												
Karlsborg-------	0-9	Loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	9-28	Sand, loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	28-48	Clay	CH	A-7	0	0	100	100	85-100	85-100	64-90	40-60
	48-80	Sand	SM	A-2	0	0	100	100	50-70	5-15	0-19	NP-2
496C:												
Karlsborg-------	0-9	Loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	9-28	Sand, loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	28-48	Clay	CH	A-7	0	0	100	100	85-100	85-100	64-90	40-60
	48-80	Sand	SM	A-2	0	0	100	100	50-70	5-15	0-19	NP-2
496D:												
Karlsborg-------	0-9	Loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	9-28	Sand, loamy sand	SM	A-2	0	0	95-100	95-100	70-75	20-25	0-14	NP
	28-48	Clay	CH	A-7	0	0	100	100	85-100	85-100	64-90	40-60
	48-80	Sand	SM	A-2	0	0	100	100	50-70	5-15	0-19	NP-2
497A:												
Meenon----------	0-9	Loamy sand	SM	A-2	0	0	80-100	75-100	45-75	20-30	0-14	NP
	9-28	Sand, loamy fine sand	SM	A-3	0	0	80-100	75-100	35-75	5-30	0-14	NP
	28-41	Clay	CH	A-7	0	0	97-100	95-100	80-100	75-100	65-85	40-60
	41-80	Sand, fine sand, loamy fine sand	SM	A-3	0	0	97-100	95-100	60-70	5-25	0-20	NP-4

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
521A:												
Dody----------	0-3	Muck	PT	A-8	0	0	100	100	---	---	---	---
	3-9	Sand, loamy fine sand, fine sand	SC-SM, SM	A-2-4, A-3	0	0	100	98-100	65-75	5-20	0-23	NP-6
	9-20	Fine sand, sand, loamy fine sand	SC-SM, SM, SP-SM	A-2-4	0	0	100	98-100	85-95	10-20	0-23	NP-6
	20-23	Loamy sand, sand, loamy fine sand, fine sand	SC-SM, SM	A-2-4	0	0	100	98-100	65-80	15-25	0-23	NP-6
	23-47	Clay, silty clay	CH	A-7	0	0	100	98-100	80-100	75-100	55-70	30-40
	47-58	Loamy sand, sand, loamy fine sand, fine sand	SC-SM, SM	A-2-4	0	0	100	98-100	65-80	15-25	0-23	NP-6
	58-80	Sand, loamy sand, loamy fine sand, fine sand	SC-SM, SM	A-2-4	0	0	100	98-100	65-80	15-25	0-23	NP-6
523A:												
Nokasippi-------	0-6	Muck	PT	A-8	0	0	100	100	---	---	---	---
	6-15	Loamy sand, fine sand, loamy fine sand, sand	SM, SC-SM	A-2, A-3	0	0	90-100	85-100	55-75	5-35	0-23	NP-6
	15-22	Very fine sandy loam, fine sandy loam	CL-ML, SM, SC-SM, ML, SC	A-4	0	0-5	90-100	85-100	65-95	30-60	16-32	2-13
	22-31	Sandy clay loam, loam	CL, SC	A-6, A-2-6	0	0-5	90-100	85-100	70-90	30-70	29-40	13-21
	31-45	Gravelly loamy coarse sand, loamy sand, gravelly sand, coarse sand	SM	A-2, A-1	0	0-15	75-100	70-100	35-75	5-25	0-22	NP-5
	45-60	Cobbly sandy loam, sandy loam, fine sandy loam, gravelly fine sandy loam	ML, SC-SM, SC, SM, CL-ML	A-2-4, A-4	0	0-15	75-95	70-90	40-70	20-50	16-28	2-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
529B:												
Perida----------	0-9	Sand	SM	A-2	0	0	95-100	95-100	30-70	5-15	17-25	2-4
	9-43	Sand, fine sand	SM	A-2	0	0	90-100	80-100	40-80	5-25	0-14	NP
	43-45	Sand, fine sand	SM	A-2	0	0	90-100	80-100	40-80	5-25	0-14	NP
	45-60	Clay, silty clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	60-74	Silty clay, clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	74-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-14	NP
531A:												
Stengel---------	0-4	Loamy sand	SM	A-1-b	0	0	90-100	85-100	45-75	15-30	17-29	1-6
	4-20	Loamy sand, sand	SM	A-1-b	0	0	90-100	85-100	35-75	5-30	16-26	1-6
	20-46	Sand, loamy sand	SM	A-1-b	0	0	90-100	85-100	35-75	5-30	16-26	1-6
	46-50	Loamy sand, sand	SM	A-1-b	0	0	90-100	85-100	35-75	5-30	16-26	1-6
	50-76	Clay, silty clay	CH	A-7	0	0	99-100	98-100	90-100	75-95	58-86	36-59
	76-80	Sand, loamy sand, loamy fine sand	SM, SP-SM	A-2	0	0	99-100	98-100	50-75	5-30	0-18	NP-1

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
542B:												
Haugen, very stony----------	0-4	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-70	20-40	19-32	3-9
	4-15	Sandy loam, gravelly sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-85	15-65	16-28	1-9
	15-23	Gravelly sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-28	1-9
	23-35	Gravelly sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-27	2-10
	35-49	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM	A-2, A-4, A-1	0-5	0-7	55-100	50-90	35-75	15-45	17-28	3-10
	49-79	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	35-75	15-45	18-30	4-12
	79-80	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	17-27	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
542B:												
Haugen----------	0-7	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-70	20-40	19-32	3-9
	7-15	Sandy loam, gravelly sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-85	15-65	16-28	1-9
	15-23	Gravelly sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-28	1-9
	23-35	Gravelly sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-27	2-10
	35-49	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM	A-2, A-4, A-1	0-5	0-7	55-100	50-90	35-75	15-45	17-28	3-10
	49-79	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	35-75	15-45	18-30	4-12
	79-80	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	17-27	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
542C:												
Haugen, very stony----------	0-4	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-70	20-40	19-32	3-9
	4-15	Sandy loam, gravelly sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-85	15-65	16-28	1-9
	15-23	Gravelly sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-28	1-9
	23-35	Gravelly sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-27	2-10
	35-49	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM	A-2, A-4, A-1	0-5	0-7	55-100	50-90	35-75	15-45	17-28	3-10
	49-79	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	35-75	15-45	18-30	4-12
	79-80	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	17-27	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
542C:												
Haugen----------	0-7	Sandy loam	SC-SM, SM	A-2-4, A-4	0-5	0-7	85-100	75-98	50-70	20-40	19-32	3-9
	7-15	Sandy loam, gravelly sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-85	15-65	16-28	1-9
	15-23	Gravelly sandy loam, sandy loam, fine sandy loam, gravelly loam	SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-28	1-9
	23-35	Gravelly sandy loam, sandy loam, gravelly fine sandy loam	SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	16-27	2-10
	35-49	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SM	A-2, A-4, A-1	0-5	0-7	55-100	50-90	35-75	15-45	17-28	3-10
	49-79	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	35-75	15-45	18-30	4-12
	79-80	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	35-75	15-45	17-27	3-10
544F:												
Menahga---------	0-1	Slightly decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-2	Sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP
	2-25	Sand, loamy sand	SM	A-2, A-3	0	0	95-100	85-100	55-75	5-20	0-14	NP
	25-80	Sand, coarse sand	SM	A-2, A-3	0	0	95-100	85-100	55-70	5-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
544F:												
Mahtomedi-------	0-5	Loamy sand	SC-SM, SM	A-2	0	0-3	85-100	75-100	40-75	20-30	0-28	NP-10
	5-8	Sand, coarse sand, loamy coarse sand	SM, SP-SM	A-2, A-3	0	0-3	85-100	75-100	35-75	5-30	0-23	NP-6
	8-15	Gravelly coarse sand, coarse sand, gravelly sand, sand	SM, SP-SM	A-1	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	15-30	Gravelly sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0-15	60-95	50-90	25-65	2-15	0-23	NP-6
	30-60	Gravelly sand, coarse sand	SM, SP-SM	A-2, A-3, A-1	0	0-15	55-95	50-90	25-65	0-15	0-23	NP-6
553B:												
Branstad--------	0-9	Fine sandy loam	SC-SM, SC, CL-ML	A-4	0	0-7	85-100	80-98	55-85	30-55	22-32	5-11
	9-14	Fine sandy loam, loam, sandy loam	CL, CL-ML, SC, SC-SM	A-2-4, A-4, A-6	0	0-7	85-100	80-98	45-95	25-75	21-34	6-16
	14-20	Fine sandy loam, sandy clay loam, loam, sandy loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	45-95	25-75	23-36	8-17
	20-45	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	45-55	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	55-68	Fine sandy loam, sandy clay loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	68-80	Fine sandy loam, loam, sandy clay loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
553C:												
Branstad--------	0-9	Fine sandy loam	SC-SM, SC, CL-ML	A-4	0	0-7	85-100	80-98	55-85	30-55	22-32	5-11
	9-14	Fine sandy loam, loam, sandy loam	CL, CL-ML, SC, SC-SM	A-2-4, A-4, A-6	0	0-7	85-100	80-98	45-95	25-75	21-34	6-16
	14-20	Fine sandy loam, sandy clay loam, loam, sandy loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	45-95	25-75	23-36	8-17
	20-45	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	45-55	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	55-68	Fine sandy loam, sandy clay loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	68-80	Fine sandy loam, loam, sandy clay loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
553D:												
Branstad--------	0-9	Fine sandy loam	SC-SM, SC, CL-ML	A-4	0	0-7	85-100	80-98	55-85	30-55	22-32	5-11
	9-14	Fine sandy loam, loam, sandy loam	CL, CL-ML, SC, SC-SM	A-2-4, A-4, A-6	0	0-7	85-100	80-98	45-95	25-75	21-34	6-16
	14-20	Fine sandy loam, sandy clay loam, loam, sandy loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	45-95	25-75	23-36	8-17
	20-45	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6, A-2-4	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	45-55	Sandy clay loam, fine sandy loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	55-68	Fine sandy loam, sandy clay loam, loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
	68-80	Fine sandy loam, loam, sandy clay loam	CL, SC, SC-SM	A-4, A-6	0	0-7	85-100	80-98	55-95	30-75	23-36	8-17
555A:												
Fordum----------	0-6	Silt loam	CL, ML, CL-ML	A-4, A-6	0	0-7	80-100	75-100	70-100	65-85	20-35	3-15
	6-18	Silt loam, fine sandy loam, mucky sandy loam, gravelly loam	CL, ML, SC, SM	A-1, A-2, A-4	0	0-15	60-100	50-100	35-100	15-85	0-30	3-10
	18-30	Fine sandy loam, silt loam, mucky sandy loam, gravelly loam	CL, ML, SC, SM	A-1, A-2, A-4	0	0-15	60-100	50-100	30-100	15-85	0-30	3-10
	30-60	Sand, very gravelly loamy fine sand, gravelly coarse sand, fine sand	SP-SM, GP, SM, SP	A-1, A-2, A-3	0	0-15	30-100	25-100	7-95	1-50	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
557B:												
Shawano---------	0-2	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-18	NP-1
	2-4	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
	4-26	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
	26-60	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
557C:												
Shawano---------	0-2	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-18	NP-1
	2-4	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
	4-26	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
	26-60	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
557D:												
Shawano---------	0-2	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-18	NP-1
	2-4	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
	4-26	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
	26-60	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
586A:												
Chelmo----------	0-9	Sandy loam	SM	A-4	0	0	95-100	93-100	60-70	30-40	0-27	NP-4
	9-24	Clay	CH	A-7	0	0	100	97-100	90-100	75-95	58-86	36-59
	24-34	Stratified loamy sand to sand to sandy loam	SC-SM, SM	A-2-4	0	0	100	97-100	50-70	5-30	0-25	NP-7
	34-80	Sand	SC-SM, SM	A-2-4	0	0	100	97-100	50-70	5-15	0-25	NP-7
600A.												
Haplosaprists.												
Psammaquents.												

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
615B:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP
615C:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
615D:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP
620C:												
Lundeen---------	0-3	Silt loam	CL-ML, CL	A-4	0-7	0-15	90-100	85-100	80-100	70-90	21-32	4-9
	3-16	Silt loam	CL-ML, CL	A-4	0-7	0-15	90-100	85-100	80-100	70-90	21-30	4-9
	16-33	Silt loam	CL-ML, CL	A-4	0-7	0-15	90-100	85-100	80-100	70-90	20-28	4-9
	33-80	Bedrock	---	---	---	---	---	---	---	---	---	---
Haustrup--------	0-4	Silt loam	CL, CL-ML	A-4	0-7	0-15	90-100	85-100	80-100	70-90	21-32	4-9
	4-16	Silt loam	CL-ML, CL	A-4	0-7	0-15	90-100	85-100	80-100	70-90	21-30	4-9
	16-80	Bedrock	---	---	---	---	---	---	---	---	---	---
Rock outcrop----	0-60	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
621A:												
Bjorkland-------	0-2	Peat	PT	A-8	0	0	100	100	---	---	---	---
	2-8	Muck	PT	A-8	0	0	100	100	---	---	---	---
	8-14	Fine sand	SC-SM, SP-SM, SM	A-3, A-2-4	0	0	100	98-100	50-90	5-35	0-20	NP-4
	14-25	Fine sand, sand, loamy sand, loamy fine sand	SC-SM, SP-SM, SM	A-3, A-2-4	0	0	100	98-100	50-90	5-35	0-20	NP-4
	25-34	Loamy fine sand, loamy sand, fine sand, sand	SP-SM, SC-SM, SM	A-2-4, A-3	0	0	100	98-100	50-90	5-35	0-22	NP-5
	34-38	Clay, silty clay	CH	A-7, A-7-6	0	0	100	98-100	90-100	75-95	58-86	36-59
	38-80	Clay, silty clay	CH	A-7-6, A-7	0	0	100	98-100	90-100	75-95	58-86	36-59
623A:												
Capitola--------	0-5	Muck	PT	A-8	0	0	100	100	100	100	---	NP
	5-7	Silt loam, loam	CL, CL-ML	A-4	0-5	0-7	80-100	75-100	60-100	50-90	23-26	6-8
	7-22	Silt loam, loam, sandy loam, fine sandy loam	CL-ML, SC-SM, CL, ML, SC, SM	A-2-4, A-4	0-5	0-7	80-100	75-100	45-100	20-90	0-28	NP-9
	22-33	Sandy loam, fine sandy loam, gravelly loam	SC, SM	A-1-b, A-2-4, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-26	NP-8
	33-60	Sandy loam, fine sandy loam, gravelly sandy loam	SM, SC-SM	A-1-b, A-2-4	0-5	0-7	60-100	50-90	30-60	15-35	0-21	NP-4

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
624A:												
Ossmer----------	0-4	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	18-25	3-7
	4-6	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	6-11	Silt loam	CL, CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	15-28	NP-9
	11-26	Silt loam	CL, CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	15-28	NP-9
	26-34	Loam, sandy loam, gravelly sandy loam	SC-SM, CL-ML, ML, SC, SM, CL	A-1, A-2, A-4	0	0-7	55-100	50-100	30-95	15-80	0-28	NP-9
	34-38	Sandy loam, gravelly sandy loam, loam	CL, CL-ML, ML, SC, SC-SM, SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-95	15-80	0-28	NP-9
	38-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
631A:												
Giese----------	0-1	Muck	PT	A-8	0	0	100	100	---	---	---	---
	1-6	Silt loam	ML	A-4	1-2	0-3	95-100	90-100	80-100	65-90	27-49	6-10
	6-11	Silt loam, loam, sandy loam, fine sandy loam	CL, CL-ML	A-2-4, A-4	0-2	0-3	95-100	90-100	55-100	25-90	20-30	4-11
	11-24	Silt loam, loam, sandy loam, fine sandy loam	CL, CL-ML	A-2-4, A-4	0-2	0-3	95-100	90-100	55-100	25-90	20-30	4-11
	24-30	Loam, silt loam, sandy loam, fine sandy loam	CL, CL-ML	A-2-4, A-4	0-2	0-3	95-100	90-100	55-100	25-90	20-30	4-11
	30-36	Fine sandy loam, sandy loam, gravelly sandy loam, gravelly fine sandy loam	SC, SC-SM	A-1-b, A-2-4, A-4	0-2	0-7	75-100	70-95	40-85	20-55	18-28	4-10
	36-70	Fine sandy loam, sandy loam, gravelly sandy loam, gravelly fine sandy loam	SC-SM, SC	A-1-b, A-2-4, A-4	0-2	0-7	75-100	70-95	40-85	20-55	18-28	4-10
	70-80	Fine sandy loam, sandy loam, gravelly sandy loam, gravelly fine sandy loam	SC, SC-SM	A-1-b, A-2-4, A-4	0-2	0-7	75-100	70-95	40-85	20-55	18-28	4-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
632A:												
Aftad----------	0-10	Fine sandy loam	SM	A-4	0	0	95-100	90-100	65-90	35-50	0-18	NP-3
	10-29	Fine sandy loam, very fine sandy loam, loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0	95-100	90-100	45-95	25-75	0-23	NP-6
	29-36	Fine sandy loam, very fine sandy loam, sandy loam, loam	CL, ML, SC, SM	A-4	0	0	95-100	90-100	65-95	40-75	18-26	NP-8
	36-41	Fine sandy loam, very fine sandy loam, sandy loam, loam	CL, ML, SC, SM	A-4	0	0	95-100	90-100	65-95	40-75	18-26	NP-8
	41-60	Stratified fine sand to silt	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	60-95	35-75	0-25	NP-7
632B:												
Aftad----------	0-10	Fine sandy loam	SM	A-4	0	0	95-100	90-100	65-90	35-50	0-18	NP-3
	10-29	Fine sandy loam, very fine sandy loam, loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0	95-100	90-100	45-95	25-75	0-23	NP-6
	29-36	Fine sandy loam, very fine sandy loam, sandy loam, loam	CL, ML, SC, SM	A-4	0	0	95-100	90-100	65-95	40-75	18-26	NP-8
	36-41	Fine sandy loam, very fine sandy loam, sandy loam, loam	CL, ML, SC, SM	A-4	0	0	95-100	90-100	65-95	40-75	18-26	NP-8
	41-60	Stratified fine sand to silt	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	60-95	35-75	0-25	NP-7

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
632C:												
Aftad----------	0-10	Fine sandy loam	SM	A-4	0	0	95-100	90-100	65-90	35-50	0-18	NP-3
	10-29	Fine sandy loam, very fine sandy loam, loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0	95-100	90-100	45-95	25-75	0-23	NP-6
	29-36	Fine sandy loam, very fine sandy loam, sandy loam, loam	CL, ML, SC, SM	A-4	0	0	95-100	90-100	65-95	40-75	18-26	NP-8
	36-41	Fine sandy loam, very fine sandy loam, sandy loam, loam	CL, ML, SC, SM	A-4	0	0	95-100	90-100	65-95	40-75	18-26	NP-8
	41-60	Stratified fine sand to silt	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	60-95	35-75	0-25	NP-7
634C:												
Drylanding------	0-4	Channery silt loam	CL-ML, CL	A-4	2-10	25-45	70-95	65-90	60-85	50-80	18-39	2-17
	4-12	Very channery silt loam, channery loam, extremely channery fine sandy loam, extremely channery loam, very channery fine sandy loam	CL, CL-ML	A-4	2-15	35-65	65-90	60-85	40-80	25-70	16-36	2-17
	12-80	Bedrock	---	---	---	---	---	---	---	---	---	---

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
634C:												
Beartree--------	0-1	Muck	PT		0	0	100	100	---	---	---	---
	1-4	Channery silt loam	CL-ML, CL	A-6	2-10	15-25	85-95	80-90	65-85	55-80	27-49	6-17
	4-16	Extremely channery silt loam, very channery silt loam, extremely channery loam, very channery loam	CL-ML, CL	A-6	5-20	40-60	80-90	75-85	60-80	45-75	22-40	6-17
	16-80	Bedrock	---	---	---	---	---	---	---	---	---	---
Rock outcrop.												
635C:												
Drylanding------	0-4	Channery silt loam	CL-ML, CL	A-4	2-10	25-45	70-95	65-90	60-85	50-80	18-39	2-17
	4-12	Very channery silt loam, channery loam, extremely channery fine sandy loam, extremely channery loam, very channery fine sandy loam	CL, CL-ML	A-4	2-15	35-65	65-90	60-85	40-80	25-70	16-36	2-17
	12-80	Bedrock	---	---	---	---	---	---	---	---	---	---

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
635C:												
Beartree--------	0-1	Muck	PT		0	0	100	100	---	---	---	---
	1-4	Channery silt loam, very channery silt loam, very channery loam	CL-ML, CL	A-6	2-10	15-25	85-95	80-90	65-85	55-80	27-49	6-17
	4-16	Extremely channery silt loam, very channery silt loam, extremely channery loam, very channery loam	CL-ML, CL	A-6	5-20	40-60	80-90	75-85	60-80	45-75	22-40	6-17
	16-80	Bedrock	---	---	---	---	---	---	---	---	---	---
Rock outcrop.												
648B:												
Sconsin---------	0-4	Silt loam	CL-ML	A-4	0	0-7	92-100	91-100	81-94	64-76	24-32	5-9
	4-5	Silt loam	CL-ML, ML	A-4	0	0-7	92-100	91-100	79-96	62-77	17-28	2-9
	5-10	Silt loam	CL-ML, ML	A-4	0	0-7	92-100	91-100	79-96	62-77	17-28	2-9
	10-18	Silt loam	CL-ML, ML	A-4	0	0-7	92-100	91-100	79-96	62-77	17-28	2-9
	18-27	Silt loam	CL-ML, ML	A-4	0	0-7	92-100	91-100	79-96	62-77	17-28	2-9
	27-34	Loam, gravelly sandy loam, very gravelly fine sandy loam	CL, ML, SC, SM	A-2, A-4	0	0-15	50-100	45-100	37-92	26-67	18-29	3-11
	34-38	Sandy loam, gravelly loam, very gravelly fine sandy loam	SC, SM	A-1-b, A-2, A-4	0	0-15	54-100	50-100	36-82	17-43	17-27	3-10
	38-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-15	30-96	27-95	15-58	3-15	0-20	NP-3

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
669D:												
Fremstadt, stony	0-5	Loamy sand	SC-SM, SM	A-2-4	0-3	0-15	75-100	70-95	35-70	10-30	0-28	NP-7
	5-33	Loamy sand, sand	SC-SM, SM	A-2, A-3, A-1-b	0-3	0-15	75-100	70-95	30-70	5-25	0-24	NP-6
	33-37	Sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-70	15-35	16-27	2-10
	37-45	Loamy sand, sandy loam, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-70	15-35	0-27	NP-10
	45-70	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-70	15-25	0-23	NP-6
	70-80	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-70	15-25	0-23	NP-6
Pomroy----------	0-3	Loamy sand	SM	A-2-4	0	0-7	100	75-100	40-70	15-30	0-26	NP-7
	3-30	Sand, loamy sand	SP-SM, SM	A-3, A-2-4	0	0-7	100	75-100	40-70	5-30	0-25	NP-7
	30-45	Sandy loam	SM, SC-SM, SC	A-2	0	0-7	80-95	75-90	45-65	25-35	16-30	2-12
	45-80	Sandy loam	SM, SC-SM, SC	A-2	0	0-7	80-95	75-90	45-65	25-35	0-27	NP-10
671B:												
Spoonerhill, stony----------	0-3	Sandy loam	SC, SC-SM, SM	A-2, A-4	0-2	0-15	85-100	80-95	55-75	25-40	0-20	NP-10
	3-12	Gravelly sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2, A-4	0	0-15	60-100	50-95	35-75	15-40	0-20	NP-10
	12-16	Gravelly loamy sand, loamy sand, sandy loam	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-30	0-20	NP-10
	16-34	Loamy sand, sand, gravelly loamy sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-20	NP-10
	34-46	Sand, loamy sand, gravelly loamy sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-20	NP-10
	46-80	Gravelly loamy sand, loamy sand, sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-20	NP-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
671B:												
Spoonerhill-----	0-3	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-15	85-100	80-95	55-75	25-40	0-20	NP-10
	3-12	Gravelly sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2, A-4	0	0-15	60-100	50-95	35-75	15-40	0-20	NP-10
	12-16	Gravelly loamy sand, loamy sand, sandy loam	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-30	0-20	NP-10
	16-34	Loamy sand, sand, gravelly loamy sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-20	NP-10
	34-46	Sand, loamy sand, gravelly loamy sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-20	NP-10
	46-80	Gravelly loamy sand, loamy sand, sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-20	NP-10
706A:												
Winterfield-----	0-7	Very fine sandy loam	SC-SM, SM	A-4	0	0	100	95-100	85-100	45-60	0-25	NP-7
	7-60	Sand, gravelly sand, gravelly loamy sand, loamy sand	SM, SP-SM	A-1-b, A-2-4, A-3	0	0	60-100	60-100	40-75	5-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
706A:												
Totagatic-------	0-4	Fine sandy loam	CL, ML, SC, SM	A-4	0	0	100	100	70-85	40-55	0-30	NP-10
	4-8	Loamy fine sand, loamy sand, fine sand, sand	SM	A-2	0	0	100	100	50-80	20-35	0-23	NP-6
	8-17	Fine sand, sand, loamy sand, loamy fine sand	SM	A-2	0	0	100	100	50-80	5-45	0-23	NP-6
	17-28	Fine sand, sand, loamy sand, coarse sand, mucky sand	SM	A-2, A-3	0	0	100	100	50-80	5-35	0-23	NP-6
	28-46	Sand, fine sand, loamy sand, coarse sand, mucky sand	SM	A-2, A-3	0	0	100	100	50-80	5-35	0-23	NP-6
	46-70	Sand, coarse sand, loamy sand, fine sand, loamy fine sand	SM	A-2, A-3	0	0	100	100	50-80	5-45	0-23	NP-6
	70-80	Sand, coarse sand, fine sand, loamy sand, loamy fine sand	SM	A-2, A-3	0	0	100	100	50-80	5-45	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
715A:												
Mora----------	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-3	90-100	85-98	75-98	65-90	21-36	4-10
	4-9	Fine sandy loam, silt loam, very fine sandy loam	CL-ML, ML	A-4	0-2	0-3	90-100	85-98	55-98	25-90	17-28	2-7
	9-14	Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-2	0-2	0-3	90-100	85-98	55-95	25-75	18-30	4-12
	14-36	Sandy loam, fine sandy loam, loam	CL, SC	A-2, A-4	0-2	0-3	90-100	85-98	55-95	25-75	20-30	6-12
	36-46	Sandy loam, fine sandy loam	SC-SM, SC, SM	A-2, A-4	0-2	0-3	90-100	85-98	55-85	25-55	16-28	2-10
	46-80	Sandy loam, fine sandy loam	SC-SM, SC, SM	A-2	0-2	0-3	90-100	85-98	55-85	20-55	16-28	2-10
717B:												
Milaca----------	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-3	90-100	85-98	75-98	65-90	21-36	4-10
	4-13	Fine sandy loam, silt loam, very fine sandy loam	CL-ML, ML	A-4	0-2	0-3	90-100	85-98	55-98	25-90	17-28	2-7
	13-17	Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-2	0-2	0-3	90-100	85-98	55-95	25-75	18-30	4-12
	17-43	Sandy loam, fine sandy loam, loam	CL, SC	A-2, A-4	0-2	0-3	90-100	85-98	55-95	25-75	20-30	6-12
	43-80	Sandy loam, fine sandy loam	SC, SC-SM, SM	A-2	0-2	2-3	90-100	85-98	55-85	25-55	16-28	2-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
717C:												
Milaca----------	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-3	90-100	85-98	75-98	65-90	21-36	4-10
	4-13	Fine sandy loam, silt loam, very fine sandy loam	CL-ML, ML	A-4	0-2	0-3	90-100	85-98	55-98	25-90	17-28	2-7
	13-17	Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-2	0-2	0-3	90-100	85-98	55-95	25-75	18-30	4-12
	17-43	Sandy loam, fine sandy loam, loam	CL, SC	A-2, A-4	0-2	0-3	90-100	85-98	55-95	25-75	20-30	6-12
	43-80	Sandy loam, fine sandy loam	SC, SC-SM, SM	A-2	0-2	2-3	90-100	85-98	55-85	25-55	16-28	2-10
720F:												
Haustrup--------	0-4	Silt loam	CL, CL-ML	A-4	0-7	0-15	90-100	85-100	80-100	70-90	21-32	4-9
	4-16	Silt loam	CL-ML, CL	A-4	0-7	0-15	90-100	85-100	80-100	70-90	21-30	4-9
	16-80	Bedrock	---	---	---	---	---	---	---	---	---	---
Lundeen---------	0-3	Silt loam	CL, CL-ML	A-4	0-7	0-15	90-100	85-100	80-100	70-90	21-32	4-9
	3-16	Silt loam	CL-ML, CL	A-4	0-7	0-15	90-100	85-100	80-100	70-90	21-30	4-9
	16-33	Silt loam	CL-ML, CL	A-4	0-7	0-15	90-100	85-100	80-100	70-90	20-28	4-9
	33-80	Bedrock	---	---	---	---	---	---	---	---	---	---
Rock outcrop----	0-60	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
726B:												
Sissabagama-----	0-10	Loamy sand	SC-SM, SM	A-2-4	0	0	90-100	80-100	55-80	15-25	0-20	NP-6
	10-31	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	80-100	55-75	5-20	0-23	NP-6
	31-45	Sand, loamy sand	SM	A-2, A-3	0	0	90-100	80-100	55-75	5-20	0-20	NP-6
	45-80	Stratified very fine sand to silt	CL-ML, CL, SC-SM	A-4	0	0	95-100	90-100	90-100	65-80	15-30	2-12

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
742B:												
Milaca----------	0-4	Sandy loam	SM, SC-SM, SC	A-4	0-2	0-3	90-100	85-98	55-70	25-40	18-35	2-10
	4-13	Fine sandy loam, sandy loam	SC-SM, CL-ML, ML	A-4	0-2	0-3	90-100	85-98	55-95	25-75	17-28	2-7
	13-17	Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-2	0-2	0-3	90-100	85-98	55-95	25-75	18-30	4-12
	17-43	Sandy loam, fine sandy loam, loam	CL, SC	A-2, A-4	0-2	0-3	90-100	85-98	55-95	25-75	20-30	6-12
	43-80	Sandy loam, fine sandy loam	SC, SC-SM, SM	A-2	0-2	2-3	90-100	85-98	55-85	25-55	16-28	2-10
742C:												
Milaca----------	0-4	Sandy loam	SM, SC-SM, SC	A-4	0-2	0-3	90-100	85-98	55-70	25-40	18-35	2-10
	4-13	Fine sandy loam, sandy loam	SC-SM, CL-ML, ML	A-4	0-2	0-3	90-100	85-98	55-95	25-75	17-28	2-7
	13-17	Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-2	0-2	0-3	90-100	85-98	55-95	25-75	18-30	4-12
	17-43	Sandy loam, fine sandy loam, loam	CL, SC	A-2, A-4	0-2	0-3	90-100	85-98	55-95	25-75	20-30	6-12
	43-80	Sandy loam, fine sandy loam	SC, SC-SM, SM	A-2	0-2	2-3	90-100	85-98	55-85	25-55	16-28	2-10
742D:												
Milaca----------	0-4	Sandy loam	SM, SC-SM, SC	A-4	0-2	0-3	90-100	85-98	55-70	25-40	18-35	2-10
	4-13	Fine sandy loam, sandy loam	SC-SM, CL-ML, ML	A-4	0-2	0-3	90-100	85-98	55-95	25-75	17-28	2-7
	13-17	Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-2	0-2	0-3	90-100	85-98	55-95	25-75	18-30	4-12
	17-43	Sandy loam, fine sandy loam, loam	CL, SC	A-2, A-4	0-2	0-3	90-100	85-98	55-95	25-75	20-30	6-12
	43-80	Sandy loam, fine sandy loam	SC, SC-SM, SM	A-2	0-2	2-3	90-100	85-98	55-85	25-55	16-28	2-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
755A:												
Moppet----------	0-4	Fine sandy loam	CL, CL-ML, SC, SC-SM	A-2-4, A-4	0	0	100	100	60-95	30-65	21-26	4-8
	4-10	Fine sandy loam, loam, silt loam	CL, ML, SC, SM	A-4	0	0	100	100	75-100	40-85	18-28	3-9
	10-39	Fine sandy loam, loam, silt loam	CL, ML, SC, SM	A-4	0	0	100	100	75-100	40-85	18-28	3-9
	39-60	Gravelly sand, fine sand, loamy fine sand	SM, SP, SP-SM	A-4, A-2-4, A-1-b	0	0	55-100	50-100	15-95	2-50	15-21	NP-4
Fordum----------	0-6	Silt loam	CL, ML, CL-ML	A-4, A-6	0	0-7	80-100	75-100	70-100	65-85	20-35	3-15
	6-18	Silt loam, fine sandy loam, mucky sandy loam, gravelly loam	CL, ML, SC, SM	A-1, A-2, A-4	0	0-15	60-100	50-100	35-100	15-85	0-30	3-10
	18-30	Fine sandy loam, silt loam, mucky sandy loam, gravelly loam	CL, ML, SC, SM	A-1, A-2, A-4	0	0-15	60-100	50-100	30-100	15-85	0-30	3-10
	30-60	Sand, very gravelly loamy fine sand, gravelly coarse sand, fine sand	SP-SM, GP, SM, SP	A-1, A-2, A-3	0	0-15	30-100	25-100	7-95	1-50	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
771A:												
Lenroot---------	0-4	Loamy sand	SC-SM, SM	A-1, A-2	0	0	85-100	75-100	40-75	20-30	0-28	NP-10
	4-8	Loamy sand, coarse sand, gravelly sand, gravelly loamy coarse sand	SM, SP-SM	A-1, A-2	0	0	60-95	50-90	25-70	5-25	0-23	NP-6
	8-14	Loamy coarse sand, coarse sand, gravelly sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0	0	60-95	50-90	25-70	5-25	0-23	NP-6
	14-21	Gravelly coarse sand, gravelly sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	60-95	50-90	25-65	2-15	0-19	NP-2
	21-80	Stratified coarse sand to gravelly coarse sand	SM, SP-SM	A-2, A-1, A-3	0	0	60-95	50-90	25-65	0-15	0-19	NP-2
812B:												
Mora----------	0-4	Sandy loam	SM, SC-SM, SC	A-4	0-2	0-3	90-100	85-98	55-70	25-40	18-35	2-10
	4-9	Fine sandy loam, sandy loam	SC-SM, SM, CL-ML, ML	A-4	0-2	0-3	90-100	85-98	55-95	25-75	17-28	2-7
	9-14	Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-2	0-2	0-3	90-100	85-98	55-95	25-75	18-30	4-12
	14-36	Sandy loam, fine sandy loam, loam	CL, SC	A-2, A-4	0-2	0-3	90-100	85-98	55-95	25-75	20-30	6-12
	36-46	Sandy loam, fine sandy loam	SC-SM, SC, SM	A-2, A-4	0-2	0-3	90-100	85-98	55-85	25-55	16-28	2-10
	46-80	Sandy loam, fine sandy loam	SC-SM, SC, SM	A-2	0-2	0-3	90-100	85-98	55-85	20-55	16-28	2-10
825A:												
Meehan----------	0-4	Sand	SM	A-2	0	0	95-100	90-100	60-75	5-15	0-14	NP-1
	4-29	Sand	SM	A-2	0	0	95-100	90-100	60-75	5-15	0-14	NP-1
	29-60	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-75	5-15	0-14	NP-1

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
896A:												
Wurtsmith-------	0-6	Sand	SM, SP-SM	A-2	0	0	90-100	75-100	40-70	5-15	0-24	NP-2
	6-33	Sand, coarse sand, loamy sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	90-100	80-100	25-70	3-15	0-14	NP
	92-60	Sand, coarse sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	90-100	80-100	25-70	3-15	0-14	NP
980A:												
Soderbeck-------	0-4	Very gravelly loam	SM	A-2-4	2-7	15-50	20-60	15-55	15-50	10-40	24-39	5-9
	4-18	Extremely gravelly loam, very gravelly sandy loam, extremely cobbly sandy loam, very cobbly coarse sandy loam, extremely gravelly coarse sandy loam	SC, GC-GM, SC-SM, GC	A-2-4	2-7	15-50	15-60	10-55	5-50	1-35	22-30	7-12
	18-28	Extremely gravelly coarse sandy loam, very gravelly sandy loam, extremely cobbly sandy loam, very cobbly coarse sandy loam, extremely gravelly loam	GC, GC-GM, SC, SC-SM	A-2	2-7	15-50	15-60	10-55	5-50	1-35	22-30	7-12
	28-42	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely gravelly sand, extremely cobbly coarse sand, extremely cobbly loamy coarse sand	GM	A-1-a	2-7	30-50	15-45	10-40	5-30	0-20	0-14	NP
	42-55	Bedrock	SP	---	---	---	---	---	---	---	---	---
	55-80	Bedrock	---	---	---	---	---	---	---	---	---	---

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
1070C:												
Fremstadt-------	0-5	Sandy loam	SC-SM, SM	A-2	0-3	0-15	75-100	70-95	40-60	25-35	18-31	2-10
	5-33	Loamy sand, sand	SC-SM, SM	A-2, A-1-b	0-3	0-15	75-100	70-95	30-75	15-30	0-24	NP-6
	33-37	Sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	16-27	2-10
	37-45	Loamy sand, sandy loam, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	0-27	NP-10
	45-70	Loamy sand, gravelly loamy sand	SM, SC-SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
	70-80	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
1070D:												
Fremstadt-------	0-5	Sandy loam	SC-SM, SM	A-2	0-3	0-15	75-100	70-95	40-60	25-35	18-31	2-10
	5-33	Loamy sand, sand	SC-SM, SM	A-2, A-1-b	0-3	0-15	75-100	70-95	30-75	15-30	0-24	NP-6
	33-37	Sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	16-27	2-10
	37-45	Loamy sand, sandy loam, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	0-27	NP-10
	45-70	Loamy sand, gravelly loamy sand	SM, SC-SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
	70-80	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
1080B:												
Spoonerhill-----	0-3	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-15	85-100	80-95	55-75	25-40	0-31	NP-10
	3-12	Gravelly sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2, A-4	0	0-15	60-100	50-95	35-75	15-40	0-28	NP-10
	12-16	Gravelly loamy sand, loamy sand, sandy loam	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-30	0-27	NP-10
	16-34	Loamy sand, sand, gravelly loamy sand	SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-23	NP-6
	34-46	Sand, loamy sand, gravelly loamy sand	SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-23	NP-6
	46-80	Gravelly loamy sand, loamy sand, sand	SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-23	NP-6
Spoonerhill, stony----------	0-3	Sandy loam	SC, SC-SM, SM	A-2, A-4	0-2	0-15	85-100	80-95	55-75	25-40	0-20	NP-10
	3-12	Gravelly sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2, A-4	0	0-15	60-100	50-95	35-75	15-40	0-20	NP-10
	12-16	Gravelly loamy sand, loamy sand, sandy loam	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-30	0-20	NP-10
	16-34	Loamy sand, sand, gravelly loamy sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-20	NP-10
	34-46	Sand, loamy sand, gravelly loamy sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-20	NP-10
	46-80	Gravelly loamy sand, loamy sand, sand	SC, SC-SM, SM, SP-SM	A-1-b, A-2	0	0-15	60-100	50-95	35-75	10-25	0-20	NP-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
1080B:												
Cress----------	0-3	Sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	3-15	Sandy loam, fine sandy loam	SC, SM	A-2-4, A-4	0	0-5	85-100	80-100	55-80	25-45	0-28	NP-9
	15-31	Loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-95	20-75	0-30	0-21	NP-4
	31-36	Gravelly loamy sand, coarse sand, gravelly sand, very gravelly loamy sand	SM, SP-SM	A-3	0	0-5	55-100	50-100	20-75	0-30	0-21	NP-4
	36-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-5	30-100	25-95	15-65	0-15	0-14	NP
2002. Udorthents, earthen dams												
2015. Pits												
2050. Landfill												
3011A:												
Barronett-------	0-9	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	20-35	3-15
	9-16	Silt loam	CL, CL-ML, ML	A-4	0	0	98-100	95-100	90-100	85-95	20-30	3-10
	16-34	Silt loam, silty clay loam	CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	28-35	9-15
	34-60	Stratified silt loam to very fine sand	CL, CL-ML, ML	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
3082E:												
Braham----------	0-8	Loamy fine sand	SM, SC-SM	A-2-4	0	0-5	95-100	85-100	75-95	20-35	0-27	NP-9
	8-28	Loamy sand, loamy fine sand	SC-SM, SM	A-2-4	0	0-5	95-100	85-100	75-95	20-35	0-25	NP-9
	28-42	Clay loam, sandy clay loam, loam	CL	A-6	0	0-5	95-100	85-96	75-90	30-75	31-42	13-21
	42-48	Sandy clay loam, loam	CL, CL-ML	A-6	0	0-5	95-100	85-96	75-90	30-70	22-35	7-16
	48-80	Loam, sandy clay loam	CL, CL-ML	A-6	0	0-5	95-100	85-96	75-90	45-70	22-35	7-16
Shawano---------	0-2	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-18	NP-1
	2-4	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
	4-26	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
	26-60	Fine sand	SM	A-2	0	0	100	100	65-80	20-35	0-17	NP-1
3114A:												
Saprists--------	0-80	Muck	PT	A-8	0	0	100	100	---	---	---	---
Aquents---------	0-3	Muck	PT	A-8	0	0	100	100	---	---	---	NP
	3-8	Loamy sand, mucky sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
	8-16	Sand, loamy sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
	16-22	Sand, loamy sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
	22-60	Sand, loamy sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
Aquepts---------	0-4	Muck	PT	A-8	0	0	100	100	---	---	---	---
	4-15	Silt loam, loam, sandy loam, fine sandy loam, very fine sandy loam	CL, ML, SC, SM	A-2, A-4	0	0-7	80-100	75-100	45-100	25-90	0-35	NP-13
	15-28	Loam, gravelly sandy loam, fine sandy loam	CL, ML, SC, SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-95	15-80	0-28	NP-9
	28-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
3125A:												
Meehan----------	0-5	Loamy sand	SM	A-2	0	0	95-100	90-100	60-75	15-25	16-29	1-6
	5-8	Sand	SM	A-2	0	0	95-100	90-100	60-75	5-15	0-19	NP-2
	8-28	Sand	SM	A-2	0	0	95-100	90-100	60-75	5-15	0-19	NP-2
	28-60	Sand	SM	A-2, A-3	0	0	95-100	90-100	60-70	5-15	0-18	NP-1
3126A:												
Wurtsmith-------	0-9	Loamy sand	SM	A-2	0	0	85-100	75-100	55-75	20-30	0-35	NP-6
	9-37	Coarse sand, sand	SM	A-2, A-3	0	0	85-100	75-100	50-70	5-15	0-19	NP-2
	37-60	Sand, coarse sand	SM	A-2, A-3	0	0	85-100	75-100	50-70	5-15	0-14	NP
3312B:												
Glendenning, very stony-----	0-5	Sandy loam	SC-SM, SM	A-2, A-4	0-5	0-7	80-100	75-98	50-60	25-45	15-25	NP-5
	5-15	Sandy loam, fine sandy loam, gravelly loam	SC-SM, SM	A-2, A-4	0	0-15	55-100	50-98	35-75	15-40	15-25	NP-5
	15-20	Sandy loam, fine sandy loam, gravelly loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-28	NP-5
	20-26	Sandy loam, fine sandy loam, gravelly loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-28	NP-5
	26-40	Sandy loam, loam, gravelly fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-25	NP-10
	40-65	Sandy loam, loam, gravelly fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-25	NP-10
	65-80	Sandy loam, gravelly fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-25	NP-5

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
3312B:												
Glendenning-----	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-15	80-100	75-98	50-60	25-45	15-25	NP-5
	7-15	Sandy loam, fine sandy loam, gravelly loam	SC-SM, SM	A-2, A-4	0	0-15	55-100	50-98	35-75	15-40	15-25	NP-5
	15-20	Sandy loam, fine sandy loam, gravelly loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-28	NP-5
	20-26	Sandy loam, fine sandy loam, gravelly loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-28	NP-5
	26-40	Sandy loam, loam, gravelly fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-25	NP-10
	40-65	Sandy loam, loam, gravelly fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-25	NP-10
	65-80	Sandy loam, gravelly fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-98	35-75	15-40	15-25	NP-5
3336A:												
Fenander--------	0-9	Fine sandy loam	ML, SM	A-4	0	0	95-100	93-100	75-85	45-50	0-27	NP-4
	9-15	Fine sandy loam, sandy loam, silt loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	93-100	75-90	35-75	17-28	2-10
	15-27	Loam, sandy loam, fine sandy loam, silt loam	SC-SM, CL-ML	A-4	0	0	95-100	93-100	75-90	35-75	21-31	6-12
	27-33	Fine sandy loam, sandy loam, loam	SC-SM	A-4	0	0	95-100	93-100	75-90	35-45	21-31	6-12
	33-80	Stratified loamy fine sand to fine sandy loam	SC-SM	A-2-4, A-4	0	0	95-100	93-100	45-85	10-50	16-32	2-13

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
3403A:												
Loxley----------	0-13	Mucky peat	PT	A-8	0	0	100	100	100	100	---	NP
	13-60	Muck	PT	A-8	0	0	100	100	100	100	---	NP
Beseman---------	0-36	Muck	PT	A-8	0	0	100	100	100	100	---	---
	36-60	Loam, silt loam, sandy loam	CL, CL-ML, SC-SM	A-4, A-2-4	0	0-2	80-100	75-100	45-100	25-90	20-33	4-13
Dawson----------	0-8	Peat	PT	A-8	0	0	100	100	---	---	---	---
	8-38	Muck	PT	A-8	0	0	100	100	---	---	---	---
	38-40	Silt loam, loam, fine sand, mucky sand	SM, ML	A-2-4, A-4	0	0	100	100	50-100	10-90	0-59	NP-9
	40-60	Sand, gravelly sand, very gravelly very fine sand	SP-SM, GP, SM, SP	A-1, A-2, A-3, A-4	0	0	45-100	35-100	15-90	0-45	0-23	NP-6
3429B:												
Lara----------	0-10	Loamy fine sand	SM, SC-SM	A-2-4	0	0	100	98-100	75-100	10-40	0-26	NP-6
	10-35	Fine sand, loamy fine sand	SM, SC-SM	A-2-4	0	0	100	98-100	75-100	20-40	0-23	NP-6
	35-42	Loamy fine sand, fine sand	SM, SC-SM	A-2-4	0	0	100	98-100	75-100	20-40	0-22	NP-6
	42-55	Clay, silty clay	CH	A-7, A-7-6	0	0	100	98-100	55-100	55-100	67-85	44-59
	55-75	Clay, silty clay	CH	A-7, A-7-6	0	0	100	98-100	55-100	55-100	67-85	44-59
	75-80	Silty clay, clay	CH	A-7, A-7-6	0	0	100	98-100	55-100	55-100	49-85	29-59

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
3429C:												
Lara----------	0-10	Loamy fine sand	SM, SC-SM	A-2-4	0	0	100	98-100	75-100	10-40	0-26	NP-6
	10-35	Fine sand, loamy fine sand	SM, SC-SM	A-2-4	0	0	100	98-100	75-100	20-40	0-23	NP-6
	35-42	Fine sand, loamy fine sand	SM, SC-SM	A-2-4	0	0	100	98-100	75-100	20-40	0-22	NP-6
	42-55	Clay, silty clay	CH	A-7, A-7-6	0	0	100	98-100	55-100	55-100	67-85	44-59
	55-75	Clay, silty clay	CH	A-7, A-7-6	0	0	100	98-100	55-100	55-100	67-85	44-59
	75-80	Silty clay, clay	CH	A-7, A-7-6	0	0	100	98-100	55-100	55-100	49-85	29-59
3446A:												
Newson----------	0-3	Muck	PT	A-8	0	0	100	100	---	---	---	NP
	3-8	Loamy sand, mucky sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
	8-16	Sand, loamy sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
	16-22	Sand, loamy sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
	22-60	Sand, loamy sand	SM	A-2, A-3	0	0	80-100	75-100	50-70	5-15	0-14	NP
3448B:												
Grettum---------	0-3	Loamy sand	SC-SM, SM	A-2-4	0	0	90-100	85-100	60-80	15-25	0-23	NP-6
	3-32	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	32-75	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	75-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-21	NP-4
3448C:												
Grettum---------	0-3	Loamy sand	SC-SM, SM	A-2-4	0	0	90-100	85-100	60-80	15-25	0-23	NP-6
	3-32	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	32-75	Sand, loamy sand	SC-SM, SM	A-2-4, A-3	0	0	90-100	85-100	70-95	5-20	0-23	NP-6
	75-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-21	NP-4

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
3510B:												
Pomroy----------	0-3	Loamy sand	SM	A-2-4	0	0-7	100	75-100	40-70	15-30	0-26	NP-7
	3-30	Sand, loamy sand	SP-SM, SM	A-3, A-2-4	0	0-7	100	75-100	40-70	5-30	0-25	NP-7
	30-45	Sandy loam	SM, SC-SM, SC	A-2	0	0-7	80-95	75-90	45-65	25-35	16-30	2-12
	45-80	Sandy loam	SM, SC-SM, SC	A-2	0	0-7	80-95	75-90	45-65	25-35	0-27	NP-10
Fremstadt-------	0-5	Loamy sand	SC-SM, SM	A-2-4	0-3	0-15	75-100	70-95	30-75	15-30	0-28	NP-7
	5-33	Loamy sand, sand	SC-SM, SM	A-2, A-1-b	0-3	0-15	75-100	70-95	30-75	15-30	0-24	NP-6
	33-37	Sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	16-27	2-10
	37-45	Loamy sand, sandy loam, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	0-27	NP-10
	45-70	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
	70-80	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
Fremstadt, stony	0-5	Loamy sand	SC-SM, SM	A-2-4	0-3	0-15	75-100	70-95	30-75	15-30	0-28	NP-7
	5-33	Loamy sand, sand	SC-SM, SM	A-2, A-1-b	0-3	0-15	75-100	70-95	30-75	15-30	0-24	NP-6
	33-37	Sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	16-27	2-10
	37-45	Loamy sand, sandy loam, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	0-27	NP-10
	45-70	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
	70-80	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
3510C:												
Pomroy----------	0-3	Loamy sand	SM	A-2-4	0	0-7	100	75-100	40-70	15-30	0-26	NP-7
	3-30	Sand, loamy sand	SP-SM, SM	A-3, A-2-4	0	0-7	100	75-100	40-70	5-30	0-25	NP-7
	30-45	Sandy loam	SM, SC-SM, SC	A-2	0	0-7	80-95	75-90	45-65	25-35	16-30	2-12
	45-80	Sandy loam	SM, SC-SM, SC	A-2	0	0-7	80-95	75-90	45-65	25-35	0-27	NP-10
Fremstadt-------	0-5	Loamy sand	SC-SM, SM	A-2-4	0-3	0-15	75-100	70-95	30-75	15-30	0-28	NP-7
	5-33	Loamy sand, sand	SC-SM, SM	A-2, A-1-b	0-3	0-15	75-100	70-95	30-75	15-30	0-24	NP-6
	33-37	Sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	16-27	2-10
	37-45	Loamy sand, sandy loam, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	0-27	NP-10
	45-70	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
	70-80	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
Fremstadt, stony	0-5	Loamy sand	SC-SM, SM	A-2-4	0-3	0-15	75-100	70-95	30-75	15-30	0-28	NP-7
	5-33	Loamy sand, sand	SC-SM, SM	A-2, A-1-b	0-3	0-15	75-100	70-95	30-75	15-30	0-24	NP-6
	33-37	Sandy loam, loamy sand, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	16-27	2-10
	37-45	Loamy sand, sandy loam, gravelly loamy sand	SC, SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-60	10-40	0-27	NP-10
	45-70	Loamy sand, gravelly loamy sand	SM, SC-SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6
	70-80	Loamy sand, gravelly loamy sand	SC-SM, SM	A-1-b, A-2	0-3	0-15	70-100	65-95	30-50	10-30	0-23	NP-6

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
3511A:												
Bushville-------	0-4	Loamy sand	SM	A-2-4	0	0-7	95-100	90-100	45-75	15-30	0-24	NP-6
	4-21	Loamy sand, sand	SM, SP-SM	A-2-4	0	0-7	95-100	90-100	45-75	5-30	0-21	NP-4
	21-24	Fine sandy loam, sandy loam	SC, SC-SM	A-2-4, A-4	0	0-7	90-100	85-90	50-75	25-50	18-28	4-10
	24-30	Fine sandy loam, sandy loam	SC, SC-SM	A-2-4, A-4	0	0-7	90-100	85-90	50-75	25-50	20-30	6-12
	30-45	Sandy loam, fine sandy loam	SC-SM, SC	A-2-4, A-4	0	0-7	90-100	85-90	50-75	25-50	18-28	4-10
	45-60	Sandy loam	SC-SM, SM	A-2-4, A-4	0	0-7	90-100	85-90	50-70	25-40	16-27	2-10
3516A:												
Slimlake--------	0-6	Sandy loam	SM	A-4	0	0-7	90-100	85-100	50-70	30-40	17-29	1-6
	6-17	Sandy loam	SM, SC-SM	A-2-4, A-4	0	0-7	90-100	85-100	50-70	30-40	15-23	1-6
	17-42	Gravelly sand, loamy sand	SP-SM	A-1	0	0-7	70-90	65-85	35-55	5-15	0-17	NP-1
	42-53	Gravelly sand, sand, coarse sand	SP-SM	A-1	0	0-7	70-90	65-85	35-55	5-10	0-17	NP-1
	53-80	Sand, gravelly sand, coarse sand	SP-SM	A-1	0	0-7	70-90	65-85	35-55	5-10	0-17	NP-1
3625A:												
Lino----------	0-7	Loamy fine sand	SM	A-2	0	0	100	100	70-80	15-35	0-26	NP-6
	7-45	Fine sand, loamy fine sand	SM, SP-SM	A-2	0	0	100	100	50-80	5-35	0-23	NP-6
	45-60	Fine sand, sand	SM	A-2, A-3	0	0	100	100	50-70	5-25	0-19	NP-2
3626A:												
Crex----------	0-1	Moderately decomposed plant material	PT	A-8	0	0	100	100	---	---	---	---
	1-7	Loamy fine sand	SM	A-2-4	0	0	100	100	70-80	15-35	0-37	NP-4
	7-40	Fine sand, loamy fine sand	SM	A-2-4	0	0	100	100	50-80	5-25	0-18	NP-1
	40-71	Fine sand, sand	SM, SP-SM	A-2-4, A-3	0	0	100	100	50-80	5-25	0-18	NP-1
	71-80	Sand, fine sand	SM, SP-SM	A-2-4, A-3	0	0	100	100	50-80	5-25	0-18	NP-1

Table 22.--Engineering Index Properties--Continued

Map symbol and soil name	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	
3629B:												
Perida----------	0-9	Loamy sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	9-43	Sand, loamy sand, fine sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	43-45	Loamy sand, sand, fine sand	SM	A-2	0	0	90-100	80-100	60-75	15-25	0-14	NP
	45-60	Clay, silty clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	60-74	Silty clay, clay	CH	A-7	0	0	100	100	90-100	75-100	64-90	40-60
	74-80	Sand	SM	A-2-4, A-3	0	0	90-100	85-100	55-75	5-15	0-14	NP
3636B:												
Plainbo---------	0-4	Sand	SM, SC-SM, SP-SM	A-1, A-2-4	0	0	60-100	55-100	30-70	5-15	0-25	NP-5
	4-13	Sand, gravelly sand	SM, SP-SM, SC-SM	A-1, A-2-4, A-3	0	0-15	60-100	55-100	30-70	5-15	0-22	NP-5
	13-32	Sand, gravelly sand	SM, SP-SM	A-1, A-2-4, A-3	0	0-15	60-100	55-100	30-70	5-15	0-22	NP-5
	32-75	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
	75-80	Bedrock	---	---	---	---	---	---	---	---	---	---
3636C:												
Plainbo---------	0-4	Sand	SM, SC-SM, SP-SM	A-1, A-2-4	0	0	60-100	55-100	30-70	5-15	0-25	NP-5
	4-13	Sand, gravelly sand	SM, SP-SM, SC-SM	A-2-4, A-3, A-1	0	0-15	60-100	55-100	30-70	5-15	0-22	NP-5
	13-32	Sand, gravelly sand	SM, SP-SM	A-1, A-2-4, A-3	0	0-15	60-100	55-100	30-70	5-15	0-22	NP-5
	32-75	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
	75-80	Bedrock	---	---	---	---	---	---	---	---	---	---
M-W. Miscellaneous water												
W. Water												

Table 23.--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 soil name	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					
3A:												
Totagatic----------	0-4	0-0	0.15-0.45	6.00-20	0.35-0.45	---	55-85	.02	.02	5	8	0
	4-8	0-10	1.40-1.65	6.00-20	0.05-0.15	0.0-2.9	0.0-0.5	.10	.15			
	8-17	0-10	1.40-1.65	6.00-20	0.05-0.15	0.0-2.9	0.0-0.5	.10	.15			
	17-28	0-10	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-10	.10	.15			
	28-46	0-10	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-10	.10	.15			
	46-70	0-10	1.40-1.65	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
	70-80	0-10	1.40-1.65	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
Bowstring----------	0-38	0-0	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	.02	.02	3	8	0
	38-47	0-10	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	47-80	0-0	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	.02	.02			
Ausable----------	0-10	0-0	0.15-0.45	0.20-6.00	0.35-0.45	---	55-85	.02	.02	2	8	0
	10-60	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.02	.02			
12A:												
Makwa----------	0-8	0-0	0.15-0.35	0.20-6.00	0.23-0.38	---	75-100	.02	.02	3	8	0
	8-16	5-15	1.25-1.45	0.60-6.00	0.06-0.16	0.0-2.9	4.0-10	---	---			
	16-43	6-25	1.25-1.45	0.60-6.00	0.06-0.10	0.0-2.9	0.2-0.8	---	---			
	43-65	6-30	1.60-1.70	0.60-2.00	0.05-0.09	0.0-2.9	0.0-0.5	---	---			
	65-80	20-50	1.65-1.85	0.06-0.20	0.20-0.22	0.0-2.9	0.0-0.5	---	---			
22A:												
Comstock----------	0-8	8-22	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37	5	5	56
	8-15	8-20	1.40-1.65	0.60-2.00	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	15-21	15-28	1.40-1.65	0.60-2.00	0.18-0.22	3.0-5.9	0.0-0.5	.43	.43			
	21-34	18-30	1.40-1.65	0.60-2.00	0.18-0.22	3.0-5.9	0.0-0.5	.43	.43			
	34-44	8-20	1.40-1.70	0.60-2.00	0.12-0.22	0.0-2.9	0.0-0.5	.37	.37			
	44-60	8-20	1.40-1.65	0.20-0.60	0.12-0.22	0.0-2.9	0.0-0.5	.37	.37			
27A:												
Scott Lake----------	0-10	6-15	1.35-1.70	0.60-2.00	0.12-0.14	0.0-2.9	2.0-3.0	.24	.24	4	3	86
	10-17	6-15	1.40-1.70	0.60-2.00	0.11-0.13	0.0-2.9	0.0-0.5	.32	.32			
	17-24	8-17	1.40-1.70	0.60-2.00	0.11-0.13	0.0-2.9	0.0-0.5	.24	.24			
	24-31	2-12	1.45-1.70	2.00-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-80	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
28B:												
Haugen, very stony----	0-4	6-14	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	8	0
	4-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-23	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	23-35	5-15	1.40-1.70	0.60-2.00	0.05-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-49	6-16	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	49-79	8-18	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	79-80	6-15	1.80-1.90	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.24	.24			
Haugen----------	0-7	6-14	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	7-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-23	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	23-35	5-15	1.40-1.70	0.60-2.00	0.05-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-49	6-16	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	49-79	8-18	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	79-80	6-15	1.80-1.90	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.24	.24			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
28B:												
Rosholt, very stony---	0-4	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	4-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
Rosholt----------	0-8	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	8-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
28C:												
Haugen, very stony----	0-4	6-14	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	4-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-23	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	23-35	5-15	1.40-1.70	0.60-2.00	0.05-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-49	6-16	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	49-79	8-18	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	79-80	6-15	1.80-1.90	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.24	.24			
Haugen----------	0-7	6-14	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	7-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-23	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	23-35	5-15	1.40-1.70	0.60-2.00	0.05-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-49	6-16	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	49-79	8-18	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	79-80	6-15	1.80-1.90	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.24	.24			
Rosholt, very stony---	0-4	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	4-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
Rosholt----------	0-8	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	8-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
38A:												
Rosholt----------	0-8	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	8-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
38B:												
Rosholt----------	0-8	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	8-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
38C:												
Rosholt----------	0-8	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	8-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
38D:												
Rosholt----------	0-8	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	8-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
42D:												
Amery----------	0-3	4-12	1.05-1.25	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	3-22	4-15	1.50-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-0.5	.24	.24			
	22-34	4-14	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.24	.24			
	34-41	4-15	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.24	.24			
	41-57	6-17	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.20	.28			
	57-71	6-17	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.20	.28			
	71-80	4-15	1.80-2.00	0.02-0.20	0.02-0.05	0.0-2.9	0.0-0.5	.28	.28			
43B:												
Antigo----------	0-9	8-15	1.25-1.55	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	9-12	8-15	1.35-1.55	0.60-2.00	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	12-19	8-17	1.55-1.65	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	19-28	8-17	1.55-1.65	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	28-31	2-17	1.55-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.24			
	31-33	2-17	1.55-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.24			
	33-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
43C:												
Antigo----------	0-9	8-15	1.25-1.55	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	9-12	8-15	1.35-1.55	0.60-2.00	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	12-19	8-17	1.55-1.65	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	19-28	8-17	1.55-1.65	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	28-31	2-17	1.55-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.24			
	31-33	2-17	1.55-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.24			
	33-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
63A:												
Crystal Lake----------	0-8	8-20	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37	5	5	56
	8-12	8-20	1.40-1.60	0.60-2.00	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	12-20	15-27	1.40-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.0-0.5	.43	.43			
	20-32	18-30	1.50-1.60	0.60-2.00	0.18-0.22	3.0-5.9	0.0-0.5	.43	.43			
	32-60	8-20	1.40-1.65	0.20-0.60	0.20-0.22	0.0-2.9	0.0-0.5	.37	.37			
63B:												
Crystal Lake----------	0-8	8-20	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37	5	5	56
	8-12	8-20	1.40-1.60	0.60-2.00	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	12-20	15-27	1.40-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.0-0.5	.43	.43			
	20-32	18-30	1.50-1.60	0.60-2.00	0.18-0.22	3.0-5.9	0.0-0.5	.43	.43			
	32-60	8-20	1.40-1.65	0.20-0.60	0.20-0.22	0.0-2.9	0.0-0.5	.37	.37			
63C:												
Crystal Lake----------	0-8	8-20	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37	5	5	56
	8-12	8-20	1.40-1.60	0.60-2.00	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	12-20	15-27	1.40-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.0-0.5	.43	.43			
	20-32	18-30	1.50-1.60	0.60-2.00	0.18-0.22	3.0-5.9	0.0-0.5	.43	.43			
	32-60	8-20	1.40-1.65	0.20-0.60	0.20-0.22	0.0-2.9	0.0-0.5	.37	.37			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
64A:												
Totagatic----------	0-4	0-0	0.15-0.45	6.00-20	0.35-0.45	---	55-85	.02	.02	5	8	0
	4-8	0-10	1.40-1.65	6.00-20	0.05-0.15	0.0-2.9	0.0-0.5	.10	.15			
	8-17	0-10	1.40-1.65	6.00-20	0.05-0.15	0.0-2.9	0.0-0.5	.10	.15			
	17-28	0-10	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-10	.10	.15			
	28-46	0-10	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-10	.10	.15			
	46-70	0-10	1.40-1.65	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
	70-80	0-10	1.40-1.65	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
Winterfield----------	0-7	0-15	0.90-1.50	6.00-20	0.09-0.11	0.0-2.9	2.0-4.0	.10	.10	5	2	134
	7-60	0-10	1.55-1.65	6.00-20	0.04-0.10	0.0-2.9	0.0-0.5	.10	.17			
69C:												
Keweenaw----------	0-2	2-10	1.35-1.60	2.00-6.00	0.10-0.12	0.0-2.9	1.0-2.0	.10	.10	5	2	134
	2-4	2-15	1.45-1.80	2.00-6.00	0.09-0.14	0.0-2.9	0.5-1.0	.17	.24			
	4-16	2-15	1.55-1.80	2.00-6.00	0.08-0.13	0.0-2.9	0.0-0.5	.17	.24			
	16-20	2-10	1.55-1.80	2.00-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.17	.24			
	20-27	2-10	1.55-1.80	0.60-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.17	.24			
	27-43	2-15	1.55-1.80	0.60-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.17	.24			
	43-75	5-20	1.55-1.80	0.60-6.00	0.08-0.13	0.0-2.9	0.0-0.5	.17	.24			
	75-80	2-10	1.50-1.70	2.00-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
Sayner----------	0-2	2-10	1.25-1.45	2.00-6.00	0.08-0.12	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	2-4	0-10	1.35-1.55	2.00-20	0.04-0.11	0.0-2.9	0.5-1.0	.10	.10			
	4-7	0-10	1.35-1.65	2.00-20	0.03-0.11	0.0-2.9	1.0-2.0	.10	.10			
	7-14	0-10	1.35-1.65	2.00-20	0.03-0.11	0.0-2.9	1.0-2.0	.02	.02			
	14-22	0-10	1.45-1.70	2.00-20	0.03-0.11	0.0-2.9	0.0-0.5	.02	.02			
	22-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
Vilas----------	0-2	2-10	1.35-1.65	6.00-20	0.09-0.12	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	2-4	2-10	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10			
	4-11	2-10	1.50-1.65	6.00-20	0.09-0.11	0.0-2.9	1.0-2.0	.10	.10			
	11-23	0-10	1.50-1.70	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.02	.02			
	23-32	0-5	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.02	.02			
	32-80	0-5	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.02	.02			
69E:												
Keweenaw----------	0-2	2-10	1.35-1.60	2.00-6.00	0.10-0.12	0.0-2.9	1.0-2.0	.10	.10	5	2	134
	2-4	2-15	1.45-1.80	2.00-6.00	0.09-0.14	0.0-2.9	0.5-1.0	.17	.24			
	4-16	2-15	1.55-1.80	2.00-6.00	0.08-0.13	0.0-2.9	0.0-0.5	.17	.24			
	16-20	2-10	1.55-1.80	2.00-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.17	.24			
	20-27	2-10	1.55-1.80	0.60-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.17	.24			
	27-43	2-15	1.55-1.80	0.60-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.17	.24			
	43-75	5-20	1.55-1.80	0.60-6.00	0.08-0.13	0.0-2.9	0.0-0.5	.17	.24			
	75-80	2-10	1.50-1.70	2.00-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
Sayner----------	0-2	2-10	1.25-1.45	2.00-6.00	0.08-0.12	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	2-4	0-10	1.35-1.55	2.00-20	0.04-0.11	0.0-2.9	0.5-1.0	.10	.10			
	4-7	0-10	1.35-1.65	2.00-20	0.03-0.11	0.0-2.9	1.0-2.0	.10	.10			
	7-14	0-10	1.35-1.65	2.00-20	0.03-0.11	0.0-2.9	1.0-2.0	.02	.02			
	14-22	0-10	1.45-1.70	2.00-20	0.03-0.11	0.0-2.9	0.0-0.5	.02	.02			
	22-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
Vilas----------	0-2	2-10	1.35-1.65	6.00-20	0.09-0.12	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	2-4	2-10	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10			
	4-11	2-10	1.50-1.65	6.00-20	0.09-0.11	0.0-2.9	1.0-2.0	.10	.10			
	11-23	0-10	1.50-1.70	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.02	.02			
	23-32	0-5	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.02	.02			
	32-80	0-5	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.02	.02			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
82B:												
Cutaway----------	0-10	2-14	1.45-1.55	6.00-20	0.10-0.12	0.0-0.0	0.5-2.0	.10	.10	5	2	134
	10-21	2-14	1.50-1.60	6.00-20	0.09-0.11	0.0-0.0	0.2-0.8	---	---			
	21-24	6-18	1.50-1.60	2.00-6.00	0.15-0.17	0.0-2.9	0.0-0.5	---	---			
	24-35	16-28	1.45-1.55	0.60-2.00	0.16-0.19	3.0-5.9	0.0-0.5	---	---			
	35-53	14-26	1.55-1.70	0.60-2.00	0.16-0.19	0.0-2.9	0.0-0.5	---	---			
	53-80	12-24	1.55-1.80	0.20-2.00	0.15-0.19	0.0-2.9	0.0-0.5	---	---			
Branstad----------	0-9	9-17	1.50-1.60	0.60-2.00	0.13-0.18	0.0-2.9	1.0-2.0	.24	.24	5	3	86
	9-14	11-23	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	14-20	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	20-45	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.10	.10			
	45-55	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.10	.10			
	55-68	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
	68-80	13-25	1.55-1.80	0.20-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
82C:												
Cutaway----------	0-10	2-14	1.45-1.55	6.00-20	0.10-0.12	0.0-0.0	0.5-2.0	.10	.10	5	2	134
	10-21	2-14	1.50-1.60	6.00-20	0.09-0.11	0.0-0.0	0.2-0.8	---	---			
	21-24	6-18	1.50-1.60	2.00-6.00	0.15-0.17	0.0-2.9	0.0-0.5	---	---			
	24-35	16-28	1.45-1.55	0.60-2.00	0.16-0.19	3.0-5.9	0.0-0.5	---	---			
	35-53	14-26	1.55-1.70	0.60-2.00	0.16-0.19	0.0-2.9	0.0-0.5	---	---			
	53-80	12-24	1.55-1.80	0.20-2.00	0.15-0.19	0.0-2.9	0.0-0.5	---	---			
Branstad----------	0-9	9-17	1.50-1.60	0.60-2.00	0.13-0.18	0.0-2.9	1.0-2.0	.24	.24	5	3	86
	9-14	11-23	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	14-20	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	20-45	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.10	.10			
	45-55	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.10	.10			
	55-68	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
	68-80	13-25	1.55-1.80	0.20-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
83A:												
Smestad----------	0-10	2-12	1.40-1.60	6.00-20	0.10-0.12	0.0-0.0	1.5-3.5	.15	.15	5	2	134
	10-32	2-12	1.55-1.65	6.00-20	0.09-0.11	0.0-0.0	0.2-0.8	---	---			
	32-37	7-19	1.60-1.70	0.60-2.00	0.15-0.17	0.0-2.9	0.0-0.5	---	---			
	37-57	60-80	1.30-1.40	0.01-0.06	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
	57-80	55-75	1.30-1.40	0.01-0.06	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
85B:												
Taylor----------	0-9	10-20	1.35-1.55	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.43	.43	3	3	86
	9-14	10-40	1.45-1.55	0.20-2.00	0.17-0.22	3.0-5.9	0.2-0.8	---	---			
	14-25	60-85	1.35-1.45	0.01-0.06	0.09-0.11	9.0-12.0	0.0-0.5	---	---			
	25-32	55-80	1.40-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
	32-60	50-80	1.45-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
85C:												
Taylor----------	0-9	10-20	1.35-1.55	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.43	.43	3	3	86
	9-14	10-40	1.45-1.55	0.20-2.00	0.17-0.22	3.0-5.9	0.2-0.8	---	---			
	14-25	60-85	1.35-1.45	0.01-0.06	0.09-0.11	9.0-12.0	0.0-0.5	---	---			
	25-32	55-80	1.40-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
	32-60	50-80	1.45-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
86A:												
Indus----------	0-9	28-40	1.20-1.40	0.20-0.60	0.19-0.23	3.0-5.9	1.0-4.0	.32	.32	5	4	86
	9-21	60-85	1.30-1.40	0.02-0.06	0.12-0.16	13.5-18.9	0.0-0.5	.28	.28			
	21-25	55-85	1.30-1.40	0.02-0.06	0.12-0.16	13.5-18.9	0.0-0.5	.28	.28			
	25-39	50-85	1.30-1.50	0.02-0.06	0.10-0.14	6.0-8.9	0.0-0.5	.28	.28			
	39-60	50-85	1.30-1.50	0.02-0.06	0.10-0.14	6.0-8.9	0.0-0.5	.28	.28			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
86A:												
Alango----------	0-9	28-40	1.20-1.40	0.20-0.60	0.19-0.23	3.0-5.9	1.0-4.0	.32	.32	5	4	86
	9-10	30-45	1.25-1.45	0.20-0.60	0.18-0.22	6.0-8.9	0.5-1.0	.32	.32			
	10-28	60-85	1.30-1.40	0.02-0.06	0.12-0.16	13.5-18.9	0.0-0.5	.28	.28			
	28-60	50-85	1.35-1.45	0.02-0.06	0.10-0.15	10.5-18.9	0.0-0.5	.28	.28			
	60-80	50-85	1.35-1.45	0.02-0.06	0.10-0.15	10.5-18.9	0.0-0.5	.28	.28			
89A:												
Wildwood----------	0-12	0-0	0.10-0.25	0.20-6.00	0.35-0.45	---	25-99	.02	.02	3	2	134
	12-17	40-55	1.35-1.45	0.06-0.20	0.00-0.04	6.0-8.9	1.0-3.0	.28	.28			
	17-24	60-80	1.35-1.45	0.06-0.20	0.00-0.04	6.0-8.9	0.0-0.5	.28	.28			
	24-60	60-75	1.40-1.55	0.01-0.20	0.00-0.04	6.0-8.9	0.0-0.5	.28	.28			
96B:												
Karlsborg----------	0-9	1-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.02	.02	4	1	220
	9-28	1-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-48	60-80	1.45-1.70	0.01-0.20	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	48-80	3-8	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
96C:												
Karlsborg----------	0-9	1-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.02	.02	4	1	220
	9-28	1-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-48	60-80	1.45-1.70	0.01-0.20	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	48-80	3-8	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
96D:												
Karlsborg----------	0-9	1-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.02	.02	4	1	220
	9-28	1-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-48	60-80	1.45-1.70	0.01-0.20	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	48-80	3-8	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
100B:												
Menahga----------	0-2	0-8	1.40-1.65	6.00-20	0.06-0.08	0.0-2.9	0.5-2.0	.02	.02	5	1	220
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
100C:												
Menahga----------	0-1	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	5	1	220
	1-2	0-8	1.40-1.65	6.00-20	0.06-0.08	0.0-2.9	0.5-2.0	.02	.02			
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
100D:												
Menahga----------	0-1	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	5	1	220
	1-2	0-8	1.40-1.65	6.00-20	0.06-0.08	0.0-2.9	0.5-2.0	.02	.02			
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
120B:												
Kost----------	0-9	1-5	1.30-1.50	6.00-20	0.07-0.09	0.0-2.9	0.5-2.0	.05	.05	5	1	220
	9-25	1-5	1.30-1.50	6.00-20	0.07-0.09	0.0-2.9	0.5-2.0	.15	.15			
	25-36	0-5	1.40-1.60	6.00-20	0.06-0.08	0.0-2.9	0.0-0.5	.15	.15			
	36-42	0-5	1.40-1.60	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
	42-60	0-5	1.40-1.60	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
127D:												
Amery----------	0-3	4-12	1.05-1.25	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	3-22	4-15	1.50-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-0.5	.24	.24			
	22-34	4-14	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.24	.24			
	34-41	4-15	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.24	.24			
	41-57	6-17	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.20	.28			
	57-71	6-17	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.20	.28			
	71-80	4-15	1.80-2.00	0.02-0.20	0.02-0.05	0.0-2.9	0.0-0.5	.28	.28			
Rosholt----------	0-4	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	4-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
127E:												
Amery----------	0-3	4-12	1.05-1.25	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	3-22	4-15	1.50-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-0.5	.24	.24			
	22-34	4-14	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.24	.24			
	34-41	4-15	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.24	.24			
	41-57	6-17	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.20	.28			
	57-71	6-17	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.20	.28			
	71-80	4-15	1.80-2.00	0.02-0.20	0.02-0.05	0.0-2.9	0.0-0.5	.28	.28			
Rosholt----------	0-4	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	4-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
151A:												
Bluffton----------	0-8	10-22	1.35-1.55	0.60-2.00	0.16-0.24	1.0-2.9	3.0-7.0	.32	.32	5	5	56
	8-19	10-22	1.55-1.70	0.60-2.00	0.09-0.18	3.0-5.9	0.0-0.5	.32	.32			
	19-22	10-25	1.55-1.70	0.60-2.00	0.09-0.18	3.0-5.9	0.0-0.5	.32	.32			
	22-26	10-25	1.55-1.70	0.20-2.00	0.09-0.18	3.0-5.9	0.0-0.5	.32	.32			
	26-38	10-25	1.55-1.70	0.20-2.00	0.09-0.18	3.0-5.9	0.0-0.5	.32	.32			
	38-60	10-25	1.55-1.70	0.20-2.00	0.09-0.18	3.0-5.9	0.0-0.5	.32	.32			
152A:												
Alstad----------	0-9	6-18	1.35-1.55	0.60-2.00	0.16-0.24	0.0-2.9	2.0-5.0	.32	.32	5	5	56
	9-15	4-16	1.45-1.65	0.60-2.00	0.09-0.22	0.0-2.9	0.5-1.0	.24	.24			
	15-18	13-25	1.55-1.65	0.60-2.00	0.09-0.18	3.0-5.9	0.1-0.8	.24	.24			
	18-24	15-30	1.55-1.65	0.60-2.00	0.09-0.18	3.0-5.9	0.1-0.8	.24	.24			
	24-49	18-32	1.55-1.70	0.60-2.00	0.09-0.18	3.0-5.9	0.0-0.5	.32	.32			
	49-60	13-17	1.55-1.80	0.20-2.00	0.09-0.18	0.0-2.9	0.0-0.5	.28	.28			
154E:												
Cushing----------	0-5	6-18	1.35-1.55	0.60-2.00	0.16-0.24	0.0-2.9	2.0-5.0	.32	.32	5	3	86
	5-15	4-16	1.45-1.65	0.60-2.00	0.09-0.22	0.0-2.9	0.5-1.0	.24	.24			
	15-33	11-27	1.55-1.65	0.60-2.00	0.09-0.18	3.0-5.9	0.1-0.8	.24	.24			
	33-57	18-30	1.55-1.65	0.60-2.00	0.09-0.18	3.0-5.9	0.1-0.8	.24	.24			
	57-65	18-30	1.55-1.70	0.60-2.00	0.09-0.18	3.0-5.9	0.0-0.5	.32	.32			
	65-73	18-30	1.55-1.70	0.60-2.00	0.09-0.18	3.0-5.9	0.0-0.5	.32	.32			
	73-80	13-17	1.55-1.80	0.20-0.60	0.09-0.18	0.0-2.9	0.0-0.5	.28	.28			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
156B:												
Magnor, very stony----	0-4	7-15	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37	4	8	0
	4-11	5-13	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	11-16	6-14	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	16-21	7-15	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	21-39	7-17	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	39-58	7-17	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	58-60	3-14	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Magnor----------	0-8	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	8-11	5-13	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	11-16	6-14	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	16-21	7-15	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	21-39	7-17	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	39-58	7-17	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	58-60	3-14	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
157B:												
Freeon, very stony----	0-4	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37	4	8	0
	4-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-39	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	39-53	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	53-80	3-14	1.80-2.00	0.01-0.06	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
Freeon----------	0-4	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	4-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-39	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	39-53	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	53-80	3-14	1.80-2.00	0.01-0.06	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
157C:												
Freeon, very stony----	0-4	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37	4	8	0
	4-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-39	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	39-53	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	53-80	3-14	1.80-2.00	0.01-0.06	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
Freeon----------	0-4	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	4-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-39	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	39-53	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	53-80	3-14	1.80-2.00	0.01-0.06	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
160A:												
Oesterle----------	0-7	8-15	1.40-1.70	0.60-6.00	0.12-0.14	0.0-2.9	2.0-3.0	.20	.20	4	3	86
	7-11	8-15	1.40-1.70	0.60-6.00	0.10-0.19	0.0-2.9	0.5-1.0	.24	.24			
	11-31	7-17	1.40-1.70	0.60-6.00	0.08-0.19	0.0-2.9	0.0-0.5	.24	.24			
	31-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
165B:												
Elderon----------	0-7	5-15	1.50-1.60	2.00-20	0.07-0.14	0.0-2.9	1.0-2.0	.15	.20	3	3	56
	7-15	5-15	1.50-1.60	2.00-20	0.06-0.09	0.0-2.9	0.0-0.5	.15	.20			
	15-44	2-10	1.55-1.80	20-60	0.01-0.07	0.0-2.9	0.0-0.0	.10	.15			
	44-60	0-8	1.60-1.80	20-60	0.01-0.05	0.0-2.9	0.0-0.0	.10	.15			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
185B:												
Tradelake----------	0-9	10-20	1.35-1.45	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.28	.28	4	3	86
	9-13	5-9	1.50-1.60	0.60-2.00	0.12-0.19	0.0-2.9	0.2-0.8	---	---			
	13-21	8-12	1.55-1.65	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	---	---			
	21-25	8-12	1.55-1.65	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	---	---			
	25-48	60-80	1.25-1.50	0.01-0.20	0.08-0.12	9.0-11.9	0.0-0.5	---	---			
	48-52	60-80	1.25-1.50	0.01-0.20	0.08-0.12	9.0-11.9	0.0-0.5	---	---			
	52-80	1-8	1.55-1.70	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	---	---			
Taylor----------	0-9	10-20	1.35-1.55	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.43	.43	3	3	86
	9-14	10-40	1.45-1.55	0.20-2.00	0.17-0.22	3.0-5.9	0.2-0.8	---	---			
	14-25	60-85	1.35-1.45	0.01-0.06	0.09-0.11	9.0-12.0	0.0-0.5	---	---			
	25-32	55-80	1.40-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
	32-60	50-80	1.45-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
185C:												
Tradelake----------	0-9	10-20	1.35-1.45	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.28	.28	4	3	86
	9-13	5-9	1.50-1.60	0.60-2.00	0.12-0.19	0.0-2.9	0.2-0.8	---	---			
	13-21	8-12	1.55-1.65	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	---	---			
	21-25	8-12	1.55-1.65	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	---	---			
	25-48	60-80	1.25-1.50	0.01-0.20	0.08-0.12	9.0-11.9	0.0-0.5	---	---			
	48-52	60-80	1.25-1.50	0.01-0.20	0.08-0.12	9.0-11.9	0.0-0.5	---	---			
	52-80	1-8	1.55-1.70	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	---	---			
Taylor----------	0-9	10-20	1.35-1.55	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.43	.43	3	3	86
	9-14	10-40	1.45-1.55	0.20-2.00	0.17-0.22	3.0-5.9	0.2-0.8	---	---			
	14-25	60-85	1.35-1.45	0.01-0.06	0.09-0.11	9.0-12.0	0.0-0.5	---	---			
	25-32	55-80	1.40-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
	32-60	50-80	1.45-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
185D:												
Tradelake----------	0-9	10-20	1.35-1.45	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.28	.28	4	3	86
	9-13	5-9	1.50-1.60	0.60-2.00	0.12-0.19	0.0-2.9	0.2-0.8	---	---			
	13-21	8-12	1.55-1.65	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	---	---			
	21-25	8-12	1.55-1.65	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	---	---			
	25-48	60-80	1.25-1.50	0.01-0.20	0.08-0.12	9.0-11.9	0.0-0.5	---	---			
	48-52	60-80	1.25-1.50	0.01-0.20	0.08-0.12	9.0-11.9	0.0-0.5	---	---			
	52-80	1-8	1.55-1.70	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	---	---			
Taylor----------	0-9	10-20	1.35-1.55	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.43	.43	3	3	86
	9-14	10-40	1.45-1.55	0.20-2.00	0.17-0.22	3.0-5.9	0.2-0.8	---	---			
	14-25	60-85	1.35-1.45	0.01-0.06	0.09-0.11	9.0-12.0	0.0-0.5	---	---			
	25-32	55-80	1.40-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
	32-60	50-80	1.45-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
185E:												
Tradelake----------	0-9	10-20	1.35-1.45	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.28	.28	4	3	86
	9-13	5-9	1.50-1.60	0.60-2.00	0.12-0.19	0.0-2.9	0.2-0.8	---	---			
	13-21	8-12	1.55-1.65	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	---	---			
	21-25	8-12	1.55-1.65	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	---	---			
	25-48	60-80	1.25-1.50	0.01-0.20	0.08-0.12	9.0-11.9	0.0-0.5	---	---			
	48-52	60-80	1.25-1.50	0.01-0.20	0.08-0.12	9.0-11.9	0.0-0.5	---	---			
	52-80	1-8	1.55-1.70	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	---	---			
Taylor----------	0-9	10-20	1.35-1.55	0.60-2.00	0.16-0.18	0.0-2.9	1.0-3.0	.43	.43	3	3	86
	9-14	10-40	1.45-1.55	0.20-2.00	0.17-0.22	3.0-5.9	0.2-0.8	---	---			
	14-25	60-85	1.35-1.45	0.01-0.06	0.09-0.11	9.0-12.0	0.0-0.5	---	---			
	25-32	55-80	1.40-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			
	32-60	50-80	1.45-1.55	0.01-0.20	0.08-0.12	9.0-12.0	0.0-0.5	---	---			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
189A:												
Siren----------	0-9	10-25	1.45-1.55	0.60-2.00	0.15-0.24	0.0-2.9	3.0-4.0	.24	.24	5	5	56
	9-13	5-20	1.45-1.60	0.60-2.00	0.07-0.24	0.0-2.9	0.0-0.5	.24	---			
	13-20	15-35	1.45-1.60	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.0	.24	---			
	20-43	40-60	1.35-1.50	0.06-0.60	0.08-0.12	6.0-9.0	0.0-0.0	.28	.28			
	43-80	40-60	1.35-1.50	0.06-0.60	0.08-0.12	6.0-9.0	0.0-0.0	.28	.28			
193A:												
Minocqua----------	0-4	0-0	0.15-0.45	2.00-6.00	0.35-0.45	---	30-60	.02	.02	4	8	0
	4-15	10-17	1.50-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-2.0	.37	.37			
	15-28	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.32	.32			
	28-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
337A:												
Plover----------	0-10	3-8	1.35-1.65	0.60-2.00	0.13-0.18	0.0-2.9	2.0-3.0	.28	.28	5	3	86
	10-13	5-15	1.40-1.70	0.60-2.00	0.15-0.19	0.0-2.9	0.5-1.0	.24	.24			
	13-18	5-18	1.40-1.70	0.60-2.00	0.15-0.19	0.0-2.9	0.5-1.0	.24	.24			
	18-32	10-18	1.50-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	32-60	5-12	1.50-1.70	0.20-0.60	0.11-0.22	0.0-2.9	0.0-0.5	.24	.24			
368B:												
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
368C:												
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
368D:												
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
368E:												
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
380B:												
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
Rosholt----------	0-8	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	8-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
380C:												
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
Rosholt----------	0-8	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	8-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
380D:												
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
Rosholt----------	0-8	4-10	1.50-1.60	0.60-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	8-10	3-12	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	10-14	5-14	1.70-1.80	0.60-6.00	0.05-0.16	0.0-2.9	0.0-1.0	.24	.24			
	14-28	6-15	1.65-1.75	0.60-6.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	28-34	4-12	1.55-1.65	0.60-6.00	0.02-0.10	0.0-2.9	0.0-0.5	.10	.17			
	34-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
383B:												
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
383C:												
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
383D:												
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
392C:												
Rockmarsh----------	0-1	0-0	0.15-0.30	0.60-20	0.45-0.55	---	65-85	.02	.02	1	8	0
	1-8	5-25	1.45-1.55	0.60-20	0.11-0.24	0.0-2.9	1.0-2.0	.15	.37			
	8-23	2-10	1.60-1.70	0.60-20	0.04-0.11	0.0-2.9	0.2-0.8	.10	.17			
	23-46	10-35	1.45-1.55	0.60-20	0.07-0.17	0.0-2.9	0.0-0.0	.17	.24			
	46-80	5-20	1.80-1.85	0.01-0.06	0.02-0.10	0.0-2.9	0.0-0.0	.17	.24			
Dairyland----------	0-1	0-0	0.15-0.30	2.00-20	0.45-0.55	---	60-85	.02	.02	1	3	56
	1-7	5-20	1.55-1.65	2.00-20	0.07-0.11	0.0-2.9	1.0-2.0	.02	.10			
	7-14	1-15	1.55-1.70	2.00-20	0.04-0.09	0.0-2.9	0.2-0.8	.15	.15			
	14-36	2-15	1.55-1.70	6.00-20	0.04-0.07	0.0-2.9	0.0-0.0	.10	.15			
	36-49	2-15	1.55-1.70	6.00-20	0.04-0.07	0.0-2.9	0.0-0.0	.10	.15			
	49-80	5-30	1.80-1.85	0.01-0.06	0.01-0.05	0.0-2.9	0.0-0.0	.24	.24			
Makwa----------	0-8	0-0	0.15-0.35	0.20-6.00	0.23-0.38	---	75-100	.02	.02	3	8	0
	8-16	5-15	1.25-1.45	0.60-6.00	0.06-0.16	0.0-2.9	4.0-10	---	---			
	16-43	6-25	1.25-1.45	0.60-6.00	0.06-0.10	0.0-2.9	0.2-0.8	---	---			
	43-65	6-30	1.60-1.70	0.60-2.00	0.05-0.09	0.0-2.9	0.0-0.5	---	---			
	65-80	20-50	1.65-1.85	0.06-0.20	0.20-0.22	0.0-2.9	0.0-0.5	---	---			
396B:												
Friendship----------	0-4	2-6	1.50-1.65	6.00-20	0.06-0.08	0.0-2.9	0.5-2.0	.02	.02	5	1	220
	4-29	2-7	1.35-1.65	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
	29-60	0-4	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Wurtsmith----------	0-6	0-10	1.30-1.65	6.00-20	0.07-0.09	0.0-2.9	1.0-6.0	.02	.02	5	1	220
	6-33	0-5	1.40-1.60	6.00-20	0.06-0.07	0.0-2.9	0.0-0.5	.15	.15			
	33-60	0-5	1.50-1.65	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Grayling----------	0-3	0-10	1.30-1.65	6.00-20	0.07-0.09	0.0-2.9	1.0-6.0	.02	.02	5	1	220
	3-15	0-10	1.30-1.65	6.00-20	0.05-0.07	0.0-2.9	0.3-0.5	.15	.15			
	15-23	0-10	1.45-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
	23-60	0-10	1.45-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
397A:												
Perchlake----------	0-9	2-10	1.40-1.50	6.00-20	0.10-0.12	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	9-18	2-8	1.50-1.70	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	18-42	2-8	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	42-46	10-18	1.50-1.70	6.00-20	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	46-60	2-8	1.50-1.65	6.00-20	0.05-0.09	0.0-2.9	0.0-0.5	.15	.15			
399B:												
Grayling----------	0-3	0-10	1.30-1.65	6.00-20	0.07-0.09	0.0-2.9	1.0-6.0	.02	.02	5	1	220
	3-15	0-10	1.30-1.65	6.00-20	0.05-0.07	0.0-2.9	0.3-0.5	.15	.15			
	15-23	0-10	1.45-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
	23-60	0-10	1.45-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
399C:												
Grayling----------	0-3	0-10	1.30-1.65	6.00-20	0.07-0.09	0.0-2.9	1.0-6.0	.02	.02	5	1	220
	3-15	0-10	1.30-1.65	6.00-20	0.05-0.07	0.0-2.9	0.3-0.5	.15	.15			
	15-23	0-10	1.45-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
	23-60	0-10	1.45-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
399D:												
Grayling----------	0-3	0-10	1.30-1.65	6.00-20	0.07-0.09	0.0-2.9	1.0-6.0	.02	.02	5	1	220
	3-15	0-10	1.30-1.65	6.00-20	0.05-0.07	0.0-2.9	0.3-0.5	.15	.15			
	15-23	0-10	1.45-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
	23-60	0-10	1.45-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
406A:												
Loxley----------	0-13	0-0	0.30-0.40	6.00-20	0.45-0.55	---	70-90	.02	.02	3	8	0
	13-60	0-0	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	.02	.02			
407A:												
Seelyeville----------	0-80	0-0	0.10-0.25	0.20-6.00	0.35-0.45	---	25-99	.02	.02	3	8	0
Markey----------	0-32	0-0	0.15-0.45	0.20-6.00	0.35-0.45	---	55-85	.02	.02	2	8	0
	32-60	0-10	1.40-1.65	6.00-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.15			
410A:												
Seelyeville----------	0-80	0-0	0.10-0.25	0.20-6.00	0.35-0.45	---	25-99	.02	.02	3	8	0
Cathro----------	0-28	0-0	0.28-0.45	0.20-6.00	0.35-0.45	---	60-85	.02	.02	2	8	0
	28-49	10-30	1.50-1.70	0.20-2.00	0.11-0.22	0.0-2.9	0.0-0.5	.28	.28			
	49-60	10-30	1.50-1.70	0.20-2.00	0.11-0.22	0.0-2.9	0.0-0.5	.28	.28			
419A:												
Seelyeville----------	0-80	0-0	0.10-0.25	0.20-6.00	0.35-0.45	---	25-99	.02	.02	3	8	0
Cathro----------	0-28	0-0	0.28-0.45	0.20-6.00	0.35-0.45	---	60-85	.02	.02	2	8	0
	28-49	10-30	1.50-1.70	0.20-2.00	0.11-0.22	0.0-2.9	0.0-0.5	.28	.28			
	49-60	10-30	1.50-1.70	0.20-2.00	0.11-0.22	0.0-2.9	0.0-0.5	.28	.28			
Markey----------	0-32	0-0	0.15-0.45	0.20-6.00	0.35-0.45	---	55-85	.02	.02	2	8	0
	32-60	0-10	1.40-1.65	6.00-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.15			
421A:												
Dora----------	0-12	0-0	0.28-0.45	0.60-6.00	0.35-0.45	---	60-85	.02	.02	2	8	0
	12-32	0-0	0.28-0.45	0.60-6.00	0.35-0.45	---	60-85	.02	.02			
	32-36	27-40	1.35-1.50	0.20-0.60	0.18-0.22	6.0-8.9	15-25	.43	.43			
	36-42	30-50	1.50-1.75	0.06-0.20	0.10-0.16	0.0-2.9	0.0-0.5	.28	.28			
	42-60	30-50	1.50-1.75	0.01-0.20	0.10-0.16	0.0-2.9	0.0-0.5	.28	.28			
Markey----------	0-32	0-0	0.15-0.45	0.20-6.00	0.35-0.45	---	55-85	.02	.02	2	8	0
	32-60	0-10	1.40-1.65	6.00-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.15			
Seelyeville----------	0-80	0-0	0.10-0.25	0.20-6.00	0.35-0.45	---	25-99	.02	.02	3	8	0
422A:												
Seelyeville----------	0-80	0-0	0.10-0.25	0.20-6.00	0.35-0.45	---	25-99	.02	.02	3	8	0
Cathro----------	0-28	0-0	0.28-0.45	0.20-6.00	0.35-0.45	---	60-85	.02	.02	2	8	0
	28-49	10-30	1.50-1.70	0.20-2.00	0.11-0.22	0.0-2.9	0.0-0.5	.28	.28			
	49-60	10-30	1.50-1.70	0.20-2.00	0.11-0.22	0.0-2.9	0.0-0.5	.28	.28			
Rondeau----------	0-44	0-0	0.10-0.25	0.20-6.00	0.35-0.48	---	25-99	.02	.02	2	8	0
	44-60	5-15	0.05-0.20	0.01-0.20	0.20-0.22	---	---	---	---			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
426B:												
Emmert----------	0-1	1-10	1.55-1.65	6.00-20	0.10-0.12	0.0-2.9	0.5-1.0	.10	.10	1	2	134
	1-5	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.5	.10	.15			
	5-24	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.0	.10	.15			
	24-60	1-3	1.60-1.80	20-60	0.01-0.03	0.0-2.9	0.0-0.0	.10	.15			
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
Menahga----------	0-1	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	5	2	134
	1-2	2-10	1.30-1.55	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10			
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
426C:												
Emmert----------	0-1	1-10	1.55-1.65	6.00-20	0.10-0.12	0.0-2.9	0.5-1.0	.10	.10	1	2	134
	1-5	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.5	.10	.15			
	5-24	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.0	.10	.15			
	24-60	1-3	1.60-1.80	20-60	0.01-0.03	0.0-2.9	0.0-0.0	.10	.15			
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
Menahga----------	0-1	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	5	2	134
	1-2	2-10	1.30-1.55	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10			
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
426D:												
Emmert----------	0-1	1-10	1.55-1.65	6.00-20	0.10-0.12	0.0-2.9	0.5-1.0	.10	.10	1	2	134
	1-5	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.5	.10	.15			
	5-24	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.0	.10	.15			
	24-60	1-3	1.60-1.80	20-60	0.01-0.03	0.0-2.9	0.0-0.0	.10	.15			
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
Menahga----------	0-1	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	5	2	134
	1-2	2-10	1.30-1.55	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10			
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
430A:												
Freya----------	0-11	1-10	1.55-1.65	6.00-20	0.10-0.12	0.0-2.9	1.0-2.0	.05	.05	4	2	134
	11-32	1-10	1.55-1.70	6.00-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	32-47	1-10	1.55-1.70	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	47-66	60-80	1.25-1.35	0.0015-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	66-72	60-80	1.25-1.35	0.0015-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	72-80	50-80	1.25-1.50	0.0015-0.06	0.08-0.12	6.0-8.9	0.0-0.5	.28	.28			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
439B:												
Graycalm----------	0-3	2-10	1.30-1.55	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	3-22	0-10	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	22-35	0-10	1.50-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	35-60	0-15	1.50-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
Menahga----------	0-1	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	5	2	134
	1-2	2-10	1.30-1.55	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10			
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
439C:												
Graycalm----------	0-3	2-10	1.30-1.55	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	3-22	0-10	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	22-35	0-10	1.50-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	35-60	0-15	1.50-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
Menahga----------	0-1	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	5	2	134
	1-2	2-10	1.30-1.55	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10			
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
439D:												
Graycalm----------	0-3	2-10	1.30-1.55	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	3-22	0-10	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	22-35	0-10	1.50-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	35-60	0-15	1.50-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
Menahga----------	0-1	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	5	2	134
	1-2	2-10	1.30-1.55	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10			
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
442C:												
Haugen----------	0-4	6-14	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	4-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-23	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	23-35	5-15	1.40-1.70	0.60-2.00	0.05-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-49	6-16	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	49-79	8-18	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	79-80	6-15	1.80-1.90	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.24	.24			
Greenwood----------	0-6	0-0	0.30-0.40	6.00-20	0.55-0.65	---	55-75	.02	.02	3	7	38
	6-60	0-0	0.10-0.25	0.60-6.00	0.45-0.55	---	55-75	.02	.02			
443D:												
Amery----------	0-3	4-12	1.05-1.25	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	3-22	4-15	1.50-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-0.5	.24	.24			
	22-34	4-14	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.24	.24			
	34-41	4-15	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.24	.24			
	41-57	6-17	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.20	.28			
	57-71	6-17	1.65-1.90	0.20-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.20	.28			
	71-80	4-15	1.80-2.00	0.02-0.20	0.02-0.05	0.0-2.9	0.0-0.5	.28	.28			
Greenwood----------	0-6	0-0	0.30-0.40	6.00-20	0.55-0.65	---	55-75	.02	.02	3	7	38
	6-60	0-0	0.10-0.25	0.60-6.00	0.45-0.55	---	55-75	.02	.02			
459A:												
Loxley----------	0-13	0-0	0.30-0.40	6.00-20	0.55-0.65	---	70-90	.02	.02	3	8	0
	13-60	0-0	0.10-0.35	0.20-6.00	0.35-0.45	---	70-99	.02	.02			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
459A:												
Daisybay----------	0-7	0-0	0.05-0.20	6.00-20	0.55-0.65	---	50-99	.02	.02	2	8	0
	7-30	0-0	0.05-0.15	0.60-6.00	0.07-0.19	---	50-99	.02	.02			
	30-35	0-0	0.20-0.35	0.20-6.00	0.35-0.45	---	25-99	.02	.02			
	35-80	35-50	1.35-1.55	0.06-0.20	0.16-0.18	6.0-8.9	0.0-0.5	.37	.37			
Dawson----------	0-8	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	2	8	0
	8-38	0-0	0.15-0.40	0.20-6.00	0.35-0.45	---	65-85	.02	.02			
	38-40	0-15	1.55-1.75	0.60-2.00	0.18-0.20	0.0-2.9	5.0-15	.37	.37			
	40-60	0-10	1.55-1.75	6.00-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
461A:												
Bowstring----------	0-38	0-0	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	.02	.02	3	8	0
	38-47	0-10	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	47-80	0-0	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	.02	.02			
465A:												
Newson----------	0-3	0-0	0.10-0.35	6.00-20	0.35-0.55	---	30-80	.02	.02	5	8	0
	3-8	1-4	1.35-1.65	6.00-20	0.07-0.12	0.0-2.9	10-20	.10	.10			
	8-16	1-4	1.70-1.80	6.00-20	0.06-0.11	0.0-2.9	0.1-2.0	.15	.17			
	16-22	1-4	1.70-1.80	6.00-20	0.06-0.11	0.0-2.9	0.1-2.0	.15	.17			
	22-60	1-4	1.70-1.80	6.00-20	0.05-0.15	0.0-2.9	0.0-0.5	.15	.15			
Meehan----------	0-4	1-5	1.35-1.65	6.00-20	0.06-0.08	0.0-2.9	0.5-3.0	.02	.02	5	1	220
	4-29	1-4	1.60-1.70	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.15	.15			
	29-60	1-4	1.60-1.70	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
469E:												
Bigisland----------	0-3	1-10	1.55-1.65	2.00-20	0.05-0.12	0.0-2.9	1.0-2.0	.05	.10	1	2	134
	3-13	1-10	1.55-1.70	2.00-20	0.03-0.12	0.0-2.9	0.5-1.0	.05	.17			
	13-25	1-10	1.55-1.70	2.00-20	0.04-0.11	0.0-2.9	0.5-1.0	.15	.15			
	25-47	1-10	1.55-1.70	2.00-20	0.02-0.10	0.0-2.9	0.5-1.0	.15	.15			
	47-56	1-10	1.55-1.70	2.00-20	0.04-0.10	0.0-2.9	0.5-1.0	.15	.15			
	56-80	5-35	1.80-2.00	0.06-0.20	0.01-0.05	0.0-2.9	0.0-0.5	.24	.24			
Milaca----------	0-4	5-15	1.35-1.55	0.60-2.00	0.12-0.14	0.0-2.9	1.0-4.0	.24	.24	4	3	86
	4-13	5-12	1.40-1.60	0.60-2.00	0.12-0.22	0.0-2.9	0.5-2.0	.37	.37			
	13-17	8-18	1.40-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	17-43	10-18	1.50-1.70	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	43-80	5-16	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.24	.24			
471B:												
Dairyland----------	0-1	0-0	0.15-0.30	2.00-20	0.45-0.55	---	60-85	.02	.02	1	3	56
	1-7	5-20	1.55-1.65	2.00-20	0.07-0.11	0.0-2.9	1.0-2.0	.02	.10			
	7-14	1-15	1.55-1.70	2.00-20	0.04-0.09	0.0-2.9	0.2-0.8	.15	.15			
	14-36	2-15	1.55-1.70	6.00-20	0.04-0.07	0.0-2.9	0.0-0.0	.10	.15			
	36-49	2-15	1.55-1.70	6.00-20	0.04-0.07	0.0-2.9	0.0-0.0	.10	.15			
	49-80	5-30	1.80-1.85	0.01-0.06	0.01-0.05	0.0-2.9	0.0-0.0	.24	.24			
Emmert----------	0-1	1-10	1.50-1.60	6.00-20	0.08-0.13	0.0-2.9	0.5-1.0	.15	.17	1	3	56
	1-5	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.5	.10	.15			
	5-24	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.0	.10	.15			
	24-60	1-3	1.60-1.80	20-60	0.01-0.03	0.0-2.9	0.0-0.0	.10	.15			
471C:												
Dairyland----------	0-1	0-0	0.15-0.30	2.00-20	0.45-0.55	---	60-85	.02	.02	1	2	86
	1-7	1-12	1.55-1.65	2.00-20	0.07-0.11	0.0-2.9	1.0-2.0	.02	.10			
	7-14	1-15	1.55-1.70	2.00-20	0.04-0.09	0.0-2.9	0.2-0.8	.15	.15			
	14-36	2-15	1.55-1.70	6.00-20	0.04-0.07	0.0-2.9	0.0-0.0	.10	.15			
	36-49	2-15	1.55-1.70	6.00-20	0.04-0.07	0.0-2.9	0.0-0.0	.10	.15			
	49-80	5-30	1.80-1.85	0.01-0.06	0.01-0.05	0.0-2.9	0.0-0.0	.24	.24			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
471C:												
Emmert----------	0-1	1-10	1.55-1.65	6.00-20	0.10-0.12	0.0-2.9	0.5-1.0	.10	.10	1	2	86
	1-5	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.5	.10	.15			
	5-24	1-10	1.55-1.80	20-60	0.02-0.08	0.0-2.9	0.0-0.0	.10	.15			
	24-60	1-3	1.60-1.80	20-60	0.01-0.03	0.0-2.9	0.0-0.0	.10	.15			
472A:												
Rockmarsh----------	0-1	0-0	0.15-0.30	0.60-20	0.45-0.55	---	65-85	.02	.02	1	5	48
	1-8	5-25	1.45-1.55	0.60-20	0.11-0.24	0.0-2.9	1.0-2.0	.15	.37			
	8-23	2-10	1.60-1.70	0.60-20	0.04-0.11	0.0-2.9	0.2-0.8	.10	.17			
	23-46	10-35	1.45-1.55	0.60-20	0.07-0.17	0.0-2.9	0.0-0.0	.17	.24			
	46-80	5-20	1.80-1.85	0.01-0.06	0.02-0.10	0.0-2.9	0.0-0.0	.17	.24			
Clemens----------	0-2	0-0	0.35-0.45	0.60-2.00	0.55-0.65	---	30-80	.02	.02	3	8	0
	2-7	10-25	1.45-1.55	0.60-2.00	0.10-0.12	0.0-2.9	0.5-1.0	.20	.32			
	7-10	2-25	1.45-1.60	0.60-2.00	0.06-0.17	0.0-2.9	0.5-1.0	.17	.17			
	10-13	2-25	1.45-1.60	0.60-2.00	0.06-0.19	0.0-2.9	0.5-1.0	.17	.17			
	13-32	2-17	1.50-1.60	0.60-2.00	0.06-0.13	0.0-2.9	0.5-1.0	.24	.24			
	32-46	2-17	1.50-1.60	0.60-2.00	0.05-0.11	0.0-2.9	0.5-1.0	.24	.24			
	46-80	1-10	1.55-1.70	6.00-60	0.04-0.09	0.0-2.9	0.0-0.5	.15	.15			
473A:												
Dairyland----------	0-1	0-0	0.15-0.30	2.00-20	0.45-0.55	---	60-85	.02	.02	1	3	56
	1-7	5-20	1.55-1.65	2.00-20	0.07-0.11	0.0-2.9	1.0-2.0	.02	.10			
	7-14	1-15	1.55-1.70	2.00-20	0.04-0.09	0.0-2.9	0.2-0.8	.15	.15			
	14-36	2-15	1.55-1.70	6.00-20	0.04-0.07	0.0-2.9	0.0-0.0	.10	.15			
	36-49	2-15	1.55-1.70	6.00-20	0.04-0.07	0.0-2.9	0.0-0.0	.10	.15			
	49-80	5-30	1.80-1.85	0.01-0.06	0.01-0.05	0.0-2.9	0.0-0.0	.24	.24			
Skog----------	0-1	0-0	0.15-0.40	2.00-6.00	0.35-0.45	---	30-80	.02	.02	3	3	56
	1-6	10-17	1.50-1.60	2.00-6.00	0.08-0.13	0.0-2.9	1.0-2.0	.15	.17			
	6-11	2-17	1.50-1.65	2.00-6.00	0.05-0.12	0.0-2.9	0.2-0.8	.10	.17			
	11-27	2-12	1.55-1.70	6.00-60	0.04-0.09	0.0-2.9	0.0-0.5	.10	.15			
	27-38	2-12	1.60-1.80	6.00-60	0.01-0.09	0.0-2.9	0.0-0.5	.10	.15			
	38-80	0-5	1.60-1.80	6.00-60	0.01-0.06	0.0-2.9	0.0-0.2	.10	.15			
484A:												
Greenwood----------	0-6	0-0	0.30-0.40	6.00-20	0.55-0.65	---	55-75	.02	.02	3	7	38
	6-60	0-0	0.10-0.25	0.60-6.00	0.45-0.55	---	55-75	.02	.02			
Beseman----------	0-36	0-0	0.10-0.25	0.60-6.00	0.35-0.45	---	25-75	.02	.02	2	8	0
	36-60	8-20	1.35-1.60	0.20-0.60	0.09-0.22	0.0-2.9	0.5-1.0	.43	.43			
485C:												
Lupton----------	0-65	0-0	0.15-0.40	0.20-6.00	0.35-0.45	---	30-80	.02	.02	3	8	0
Tawas----------	0-31	0-0	0.15-0.40	0.20-6.00	0.35-0.45	---	30-80	.02	.02	2	8	0
	31-60	0-10	1.55-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.15	.15			
495B:												
Karlsborg----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-28	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-48	60-80	1.45-1.70	0.01-0.20	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	48-80	1-5	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Grettum----------	0-3	2-12	1.35-1.60	6.00-20	0.09-0.11	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	3-32	2-12	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	32-75	2-12	1.40-1.65	2.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	75-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
495B:												
Perida----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-43	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	43-45	2-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	45-60	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	60-74	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	74-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
495C:												
Karlsborg----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-28	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-48	60-80	1.45-1.70	0.01-0.20	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	48-80	1-5	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Grettum----------	0-3	2-12	1.35-1.60	6.00-20	0.09-0.11	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	3-32	2-12	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	32-75	2-12	1.40-1.65	2.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	75-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Perida----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-43	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	43-45	2-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	45-60	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	60-74	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	74-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
495D:												
Karlsborg----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-28	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-48	60-80	1.45-1.70	0.01-0.20	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	48-80	1-5	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Grettum----------	0-3	2-12	1.35-1.60	6.00-20	0.09-0.11	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	3-32	2-12	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	32-75	2-12	1.40-1.65	2.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	75-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Perida----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-43	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	43-45	2-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	45-60	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	60-74	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	74-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
496B:												
Karlsborg----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-28	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-48	60-80	1.45-1.70	0.01-0.20	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	48-80	1-5	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
496C:												
Karlsborg----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-28	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-48	60-80	1.45-1.70	0.01-0.20	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	48-80	1-5	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
496D:												
Karlsborg----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-28	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-48	60-80	1.45-1.70	0.01-0.20	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	48-80	1-5	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
497A:												
Meenon----------	0-9	6-8	1.35-1.65	2.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	1	250
	9-28	1-7	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
	28-41	60-90	1.35-1.60	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	41-80	1-7	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
521A:												
Dody----------	0-3	0-0	0.45-0.85	2.00-6.00	0.35-0.45	---	20-50	.02	.02	4	8	0
	3-9	1-12	1.35-1.60	2.00-6.00	0.06-0.08	0.0-2.9	0.2-1.0	.02	.02			
	9-20	2-12	1.40-1.65	2.00-6.00	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
	20-23	2-12	1.40-1.65	2.00-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	23-47	50-80	1.35-1.70	0.01-0.20	0.08-0.12	6.0-8.9	0.0-0.5	.28	.28			
	47-58	2-12	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	58-80	0-12	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
523A:												
Nokasippi----------	0-6	0-0	0.28-0.45	0.20-6.00	0.35-0.45	---	60-85	.02	.02	4	8	0
	6-15	1-10	1.44-1.65	6.00-20	0.06-0.12	0.0-2.9	0.0-0.5	.17	.17			
	15-22	5-20	1.44-1.65	0.60-6.00	0.15-0.19	0.0-2.9	0.0-0.5	.17	.17			
	22-31	20-30	1.55-1.65	0.60-2.00	0.11-0.18	0.0-2.9	0.0-0.5	.17	.17			
	31-45	1-9	1.70-1.80	6.00-20	0.02-0.04	0.0-2.9	0.0-0.5	.15	.15			
	45-60	5-16	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.17	.17			
529B:												
Perida----------	0-9	1-5	1.35-1.65	6.00-20	0.07-0.09	0.0-2.9	0.5-2.0	.02	.02	4	1	220
	9-43	1-5	1.45-1.65	6.00-20	0.06-0.08	0.0-2.9	0.0-0.5	.15	.15			
	43-45	1-5	1.45-1.65	6.00-20	0.06-0.08	0.0-2.9	0.0-0.5	.15	.15			
	45-60	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	60-74	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	74-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
531A:												
Stengel----------	0-4	4-10	1.45-1.60	2.00-20	0.07-0.09	0.0-2.9	1.0-3.0	.10	.10	4	2	134
	4-20	4-10	1.50-1.70	6.00-20	0.07-0.09	0.0-2.9	0.5-2.0	.17	.17			
	20-46	4-10	1.50-1.70	6.00-20	0.07-0.09	0.0-2.9	0.5-2.0	.17	.17			
	46-50	4-10	1.50-1.70	6.00-20	0.07-0.09	0.0-2.9	0.5-2.0	.17	.17			
	50-76	50-80	1.35-1.60	0.01-0.20	0.08-0.11	6.0-8.9	0.0-0.5	.28	.28			
	76-80	1-4	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
542B:												
Haugen, very stony----	0-4	6-14	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	4-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-23	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	23-35	5-15	1.40-1.70	0.60-2.00	0.05-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-49	6-16	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	49-79	8-18	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	79-80	6-15	1.80-1.90	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.24	.24			
Haugen----------	0-7	6-14	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	7-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-23	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	23-35	5-15	1.40-1.70	0.60-2.00	0.05-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-49	6-16	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	49-79	8-18	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	79-80	6-15	1.80-1.90	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.24	.24			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
542C:												
Haugen, very stony----	0-4	6-14	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	4-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-23	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	23-35	5-15	1.40-1.70	0.60-2.00	0.05-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-49	6-16	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	49-79	8-18	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	79-80	6-15	1.80-1.90	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.24	.24			
Haugen----------	0-7	6-14	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-3.0	.24	.24	5	3	86
	7-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-23	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	23-35	5-15	1.40-1.70	0.60-2.00	0.05-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-49	6-16	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	49-79	8-18	1.40-1.70	0.20-0.60	0.05-0.13	0.0-2.9	0.0-0.5	.24	.24			
	79-80	6-15	1.80-1.90	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.24	.24			
544F:												
Menahga----------	0-1	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	5	2	134
	1-2	0-8	1.40-1.65	6.00-20	0.06-0.08	0.0-2.9	0.5-2.0	.02	.02			
	2-25	0-15	1.25-1.60	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.10	.15			
	25-80	0-10	1.50-1.65	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
Mahtomedi----------	0-5	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	5-8	0-10	1.40-1.50	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
	8-15	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	15-30	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	30-60	0-10	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
553B:												
Branstad----------	0-9	9-17	1.50-1.60	0.60-2.00	0.13-0.18	0.0-2.9	1.0-2.0	.24	.24	5	3	86
	9-14	11-23	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	14-20	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	20-45	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.10	.10			
	45-55	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.10	.10			
	55-68	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
	68-80	13-25	1.55-1.80	0.20-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
553C:												
Branstad----------	0-9	9-17	1.50-1.60	0.60-2.00	0.13-0.18	0.0-2.9	1.0-2.0	.24	.24	5	3	86
	9-14	11-23	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	14-20	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	20-45	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.10	.10			
	45-55	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.10	.10			
	55-68	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
	68-80	13-25	1.55-1.80	0.20-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
553D:												
Branstad----------	0-9	9-17	1.50-1.60	0.60-2.00	0.13-0.18	0.0-2.9	1.0-2.0	.24	.24	5	3	86
	9-14	11-23	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	14-20	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.28	.28			
	20-45	13-25	1.55-1.65	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.10	.10			
	45-55	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.10	.10			
	55-68	13-25	1.55-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
	68-80	13-25	1.55-1.80	0.20-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.32	.32			
555A:												
Fordum----------	0-6	10-23	1.35-1.45	0.60-2.00	0.17-0.24	0.0-2.9	4.0-12	.32	.32	4	5	56
	6-18	8-17	1.40-1.50	0.60-6.00	0.10-0.22	0.0-2.9	1.0-12	.37	.37			
	18-30	8-17	1.40-1.50	0.60-6.00	0.10-0.22	0.0-2.9	1.0-12	.37	.37			
	30-60	2-5	1.55-1.70	6.00-20	0.04-0.10	0.0-2.9	0.5-1.0	.15	.15			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
557B:												
Shawano----------	0-2	1-3	1.00-1.35	6.00-20	0.07-0.09	0.0-2.9	0.5-1.0	.05	.05	5	1	220
	2-4	1-3	1.45-1.70	6.00-20	0.07-0.09	0.0-2.9	0.0-0.5	.05	.05			
	4-26	1-3	1.45-1.70	6.00-20	0.07-0.09	0.0-2.9	0.0-0.5	.05	.05			
	26-60	1-3	1.50-1.70	6.00-20	0.05-0.08	0.0-2.9	0.0-0.5	.05	.05			
557C:												
Shawano----------	0-2	1-3	1.00-1.35	6.00-20	0.07-0.09	0.0-2.9	0.5-1.0	.05	.05	5	1	220
	2-4	1-3	1.45-1.70	6.00-20	0.07-0.09	0.0-2.9	0.0-0.5	.05	.05			
	4-26	1-3	1.45-1.70	6.00-20	0.07-0.09	0.0-2.9	0.0-0.5	.05	.05			
	26-60	1-3	1.50-1.70	6.00-20	0.05-0.08	0.0-2.9	0.0-0.5	.05	.05			
557D:												
Shawano----------	0-2	1-3	1.00-1.35	6.00-20	0.07-0.09	0.0-2.9	0.5-1.0	.05	.05	5	1	220
	2-4	1-3	1.45-1.70	6.00-20	0.07-0.09	0.0-2.9	0.0-0.5	.05	.05			
	4-26	1-3	1.45-1.70	6.00-20	0.07-0.09	0.0-2.9	0.0-0.5	.05	.05			
	26-60	1-3	1.50-1.70	6.00-20	0.05-0.08	0.0-2.9	0.0-0.5	.05	.05			
586A:												
Chelmo----------	0-9	3-8	1.35-1.65	0.60-2.00	0.15-0.17	0.0-2.9	2.0-3.0	.28	.28	5	6	48
	9-24	50-80	1.35-1.70	0.01-0.20	0.08-0.12	6.0-8.9	0.0-0.5	.24	.24			
	24-34	2-12	1.40-1.65	2.00-6.00	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	34-80	0-12	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
600A:												
Haplosaprists---------	---	---	---	---	---	---	---	---	---	2	8	0
Psammaquents----------	---	---	---	---	---	---	---	---	---	2	8	0
615B:												
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
615C:												
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
615D:												
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
620C:												
Lundeen----------	0-3	8-14	1.45-1.55	0.60-2.00	0.22-0.24	0.0-3.0	1.0-3.0	.28	.28	2	5	56
	3-16	8-14	1.45-1.55	0.60-2.00	0.22-0.24	0.0-3.0	1.0-2.0	---	---			
	16-33	8-14	1.45-1.55	0.60-2.00	0.20-0.22	0.0-3.0	0.5-1.0	---	---			
	33-80	0-0	---	---	---	---	0.0-0.0	---	---			
Haustrup----------	0-4	8-14	1.45-1.55	0.60-2.00	0.22-0.24	0.0-3.0	1.0-3.0	.28	.28	1	5	56
	4-16	8-14	1.45-1.55	0.60-2.00	0.22-0.24	0.0-3.0	1.0-2.0	---	---			
	16-80	0-0	---	---	---	---	0.0-0.0	---	---			
Rock outcrop----------	0-60	0-0	---	0.0000-20	---	---	0.0-0.0	---	---	-	8	0

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
621A:												
Bjorkland----------	0-2	0-0	0.10-0.30	6.00-20	0.55-0.65	---	65-90	.02	.02	4	8	0
	2-8	0-0	0.15-0.40	6.00-20	0.35-0.45	0.0-2.9	30-80	.02	.02			
	8-14	1-7	1.55-1.70	6.00-20	0.06-0.11	0.0-2.9	0.0-0.5	.05	.05			
	14-25	1-7	1.55-1.70	6.00-20	0.06-0.11	0.0-2.9	0.0-0.5	.05	.05			
	25-34	3-9	1.55-1.70	6.00-20	0.06-0.11	0.0-2.9	0.0-0.5	.28	.28			
	34-38	50-80	1.25-1.50	0.01-0.20	0.08-0.12	6.0-8.9	0.0-0.5	.28	.28			
	38-80	50-80	1.25-1.50	0.01-0.20	0.08-0.12	6.0-8.9	0.0-0.5	.28	.28			
623A:												
Capitola----------	0-5	0-0	0.15-0.35	2.00-6.00	0.35-0.45	---	50-80	.02	.02	4	8	0
	5-7	12-16	1.25-1.45	0.60-2.00	0.16-0.24	0.0-2.9	3.0-10	.37	.37			
	7-22	8-17	1.35-1.60	0.60-2.00	0.09-0.22	0.0-2.9	0.5-1.0	.43	.43			
	22-33	8-16	1.40-1.90	0.60-2.00	0.07-0.16	0.0-2.9	0.0-0.5	.28	.28			
	33-60	5-10	1.70-1.90	0.01-0.06	0.03-0.07	0.0-2.9	0.0-0.5	.28	.28			
624A:												
Ossmer----------	0-4	8-15	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	2.0-3.0	.37	.37	4	5	56
	4-6	5-14	1.40-1.60	0.60-2.00	0.20-0.22	0.0-2.9	0.0-1.0	.37	.37			
	6-11	6-16	1.40-1.65	0.60-2.00	0.20-0.22	0.0-2.9	0.0-0.5	.37	.37			
	11-26	7-17	1.40-1.65	0.60-2.00	0.20-0.22	0.0-2.9	0.0-0.5	.37	.37			
	26-34	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.32	.32			
	34-38	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.32	.32			
	38-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
631A:												
Giese----------	0-1	0-0	0.15-0.35	2.00-6.00	0.35-0.45	---	50-80	.02	.02	4	8	0
	1-6	10-16	1.25-1.45	0.60-2.00	0.20-0.22	0.0-2.9	3.0-10	.32	.32			
	6-11	8-17	1.35-1.60	0.60-2.00	0.11-0.22	0.0-2.9	0.5-1.0	.43	.43			
	11-24	8-17	1.35-1.60	0.60-2.00	0.11-0.22	0.0-2.9	0.5-1.0	.43	.43			
	24-30	8-17	1.35-1.60	0.60-2.00	0.11-0.22	0.0-2.9	0.5-1.0	.43	.43			
	30-36	8-16	1.40-1.90	0.06-0.20	0.07-0.16	0.0-2.9	0.0-0.5	.28	.28			
	36-70	8-16	1.40-1.90	0.06-0.20	0.07-0.16	0.0-2.9	0.0-0.5	.28	.28			
	70-80	8-16	1.80-2.00	0.01-0.06	0.02-0.12	0.0-2.9	0.0-0.5	.28	.28			
632A:												
Aftad----------	0-10	3-8	1.35-1.65	0.60-2.00	0.14-0.18	0.0-2.9	1.0-3.0	.28	.28	5	3	86
	10-29	3-12	1.45-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.43	.43			
	29-36	6-14	1.50-1.70	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.43	.43			
	36-41	8-15	1.50-1.70	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.43	.43			
	41-60	5-12	1.50-1.70	0.20-0.60	0.11-0.22	0.0-2.9	0.0-0.5	.24	.24			
632B:												
Aftad----------	0-10	3-8	1.35-1.65	0.60-2.00	0.14-0.18	0.0-2.9	1.0-3.0	.28	.28	5	3	86
	10-29	3-12	1.45-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.43	.43			
	29-36	6-14	1.50-1.70	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.43	.43			
	36-41	8-15	1.50-1.70	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.43	.43			
	41-60	5-12	1.50-1.70	0.20-0.60	0.11-0.22	0.0-2.9	0.0-0.5	.24	.24			
632C:												
Aftad----------	0-10	3-8	1.35-1.65	0.60-2.00	0.14-0.18	0.0-2.9	1.0-3.0	.28	.28	5	3	86
	10-29	3-12	1.45-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.43	.43			
	29-36	6-14	1.50-1.70	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.43	.43			
	36-41	8-15	1.50-1.70	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.43	.43			
	41-60	5-12	1.50-1.70	0.20-0.60	0.11-0.22	0.0-2.9	0.0-0.5	.24	.24			
634C:												
Drylanding----------	0-4	5-25	1.45-1.65	0.60-2.00	0.12-0.18	0.0-2.9	1.0-2.0	.32	.37	2	7	38
	4-12	5-25	1.55-1.75	0.60-2.00	0.08-0.12	0.0-2.9	0.0-0.5	---	---			
	12-80	---	---	---	---	---	0.0-0.0	---	---			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
634C:												
Beartree----------	0-1	0-0	0.15-0.40	0.20-6.00	0.35-0.45	---	80-90	.02	.02	2	7	38
	1-4	10-25	1.50-1.60	0.60-2.00	0.15-0.21	0.0-1.5	3.0-7.0	---	---			
	4-16	10-25	1.60-1.80	0.60-2.00	0.10-0.14	0.0-1.5	1.0-3.0	---	---			
	16-80	---	---	---	---	---	---	---	---			
Rock outcrop.												
635C:												
Drylanding----------	0-4	5-25	1.45-1.65	0.60-2.00	0.12-0.18	0.0-2.9	1.0-2.0	.32	.37	2	7	38
	4-12	5-25	1.55-1.75	0.60-2.00	0.08-0.12	0.0-2.9	0.0-0.5	---	---			
	12-80	---	---	---	---	---	0.0-0.0	---	---			
Beartree----------	0-1	0-0	0.15-0.40	0.20-6.00	0.35-0.45	---	80-90	.02	.02	2	7	38
	1-4	10-25	1.50-1.60	0.60-2.00	0.15-0.21	0.0-1.5	3.0-7.0	---	---			
	4-16	10-25	1.60-1.80	0.60-2.00	0.10-0.14	0.0-1.5	1.0-3.0	---	---			
	16-80	---	---	---	---	---	---	---	---			
Rock outcrop.												
648B:												
Sconsin----------	0-4	9-14	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	2.0-3.0	.37	.37	4	5	56
	4-5	5-14	1.40-1.60	0.60-2.00	0.20-0.22	0.0-2.9	0.5-1.0	.37	.37			
	5-10	5-14	1.40-1.60	0.60-2.00	0.20-0.22	0.0-2.9	0.5-1.0	.37	.37			
	10-18	5-14	1.40-1.60	0.60-2.00	0.20-0.22	0.0-2.9	0.5-1.0	.37	.37			
	18-27	5-14	1.40-1.60	0.60-2.00	0.20-0.22	0.0-2.9	0.5-1.0	.37	.37			
	27-34	7-17	1.50-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.32	.32			
	34-38	6-15	1.80-2.00	0.01-0.20	0.05-0.19	0.0-2.9	0.0-0.5	.24	.24			
	38-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
669D:												
Fremstadt, stony------	0-5	2-12	1.55-1.65	2.00-6.00	0.09-0.12	0.0-2.9	1.0-2.0	.10	.10	5	2	134
	5-33	2-10	1.45-1.80	2.00-20	0.08-0.11	0.0-2.9	0.6-1.0	.15	.17			
	33-37	5-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	37-45	2-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	45-70	2-10	1.50-1.70	2.00-20	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
	70-80	2-10	1.50-1.70	2.00-6.00	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
Pomroy----------	0-3	2-10	1.55-1.65	6.00-20	0.09-0.12	0.0-2.9	0.5-1.0	.10	.10	4	2	134
	3-30	2-10	1.55-1.70	6.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.15			
	30-45	5-18	1.65-1.90	0.60-2.00	0.08-0.13	0.0-2.9	0.0-0.5	.24	.17			
	45-80	3-15	1.65-1.90	0.60-2.00	0.08-0.13	0.0-2.9	0.0-0.5	.24	.17			
671B:												
Spoonerhill, stony----	0-3	2-15	1.35-1.70	2.00-6.00	0.12-0.14	0.0-2.9	1.0-2.0	.24	.24	5	8	0
	3-12	2-15	1.45-1.80	2.00-6.00	0.06-0.14	0.0-2.9	0.5-1.0	.17	.24			
	12-16	2-15	1.55-1.80	2.00-6.00	0.05-0.13	0.0-2.9	0.0-0.5	.17	.24			
	16-34	2-10	1.55-1.80	2.00-6.00	0.03-0.10	0.0-2.9	0.0-0.5	.17	.24			
	34-46	2-10	1.80-1.85	0.20-0.60	0.03-0.10	0.0-2.9	0.0-0.5	.17	.17			
	46-80	2-10	1.80-1.85	0.20-0.60	0.03-0.10	0.0-2.9	0.0-0.5	.17	.17			
Spoonerhill----------	0-3	2-15	1.35-1.70	2.00-6.00	0.12-0.14	0.0-2.9	1.0-2.0	.20	.20	5	8	0
	3-12	2-15	1.45-1.80	2.00-6.00	0.06-0.14	0.0-2.9	0.5-1.0	.17	.24			
	12-16	2-15	1.55-1.80	2.00-6.00	0.05-0.13	0.0-2.9	0.0-0.5	.17	.24			
	16-34	2-10	1.55-1.80	2.00-6.00	0.03-0.10	0.0-2.9	0.0-0.5	.17	.24			
	34-46	2-10	1.80-1.85	0.20-0.60	0.03-0.10	0.0-2.9	0.0-0.5	.17	.17			
	46-80	2-10	1.80-1.85	0.20-0.60	0.03-0.10	0.0-2.9	0.0-0.5	.17	.17			
706A:												
Winterfield----------	0-7	2-15	0.90-1.50	6.00-20	0.17-0.19	0.0-2.9	2.0-4.0	.37	.37	5	3	86
	7-60	0-10	1.55-1.65	6.00-20	0.04-0.10	0.0-2.9	0.0-0.5	.10	.17			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
706A:												
Totagatic----------	0-4	5-15	1.30-1.55	6.00-20	0.15-0.17	0.0-2.9	1.0-2.0	.28	.28	5	3	86
	4-8	0-10	1.40-1.65	6.00-20	0.05-0.15	0.0-2.9	0.0-0.5	.10	.15			
	8-17	0-10	1.40-1.65	6.00-20	0.05-0.15	0.0-2.9	0.0-0.5	.10	.15			
	17-28	0-10	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-10	.10	.15			
	28-46	0-10	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-10	.10	.15			
	46-70	0-10	1.40-1.65	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
	70-80	0-10	1.40-1.65	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
715A:												
Mora----------	0-4	8-16	1.35-1.55	0.60-2.00	0.20-0.22	0.0-2.9	1.0-4.0	.37	.37	4	5	56
	4-9	5-12	1.40-1.60	0.60-2.00	0.12-0.22	0.0-2.9	0.5-2.0	.37	.37			
	9-14	8-18	1.40-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	14-36	10-18	1.50-1.70	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	36-46	5-16	1.60-1.80	0.60-2.00	0.11-0.16	0.0-2.9	0.0-0.5	.24	.24			
	46-80	5-16	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.24	.24			
717B:												
Milaca----------	0-4	8-16	1.35-1.55	0.60-2.00	0.20-0.22	0.0-2.9	1.0-4.0	.37	.37	4	5	56
	4-13	5-12	1.40-1.60	0.60-2.00	0.12-0.22	0.0-2.9	0.5-2.0	.37	.37			
	13-17	8-18	1.40-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	17-43	10-18	1.50-1.70	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	43-80	5-16	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.24	.24			
717C:												
Milaca----------	0-4	8-16	1.35-1.55	0.60-2.00	0.20-0.22	0.0-2.9	1.0-4.0	.37	.37	4	5	56
	4-13	5-12	1.40-1.60	0.60-2.00	0.12-0.22	0.0-2.9	0.5-2.0	.37	.37			
	13-17	8-18	1.40-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	17-43	10-18	1.50-1.70	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	43-80	5-16	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.24	.24			
720F:												
Haustrup----------	0-4	8-14	1.45-1.55	0.60-2.00	0.22-0.24	0.0-3.0	1.0-3.0	.28	.28	1	5	56
	4-16	8-14	1.45-1.55	0.60-2.00	0.22-0.24	0.0-3.0	1.0-2.0	---	---			
	16-80	0-0	---	---	---	---	0.0-0.0	---	---			
Lundeen----------	0-3	8-14	1.45-1.55	0.60-2.00	0.22-0.24	0.0-3.0	1.0-3.0	.28	.28	2	5	56
	3-16	8-14	1.45-1.55	0.60-2.00	0.22-0.24	0.0-3.0	1.0-2.0	---	---			
	16-33	8-14	1.45-1.55	0.60-2.00	0.20-0.22	0.0-3.0	0.5-1.0	---	---			
	33-80	0-0	---	---	---	---	0.0-0.0	---	---			
Rock outcrop----------	0-60	0-0	---	0.0000-20	---	---	0.0-0.0	---	---	-	8	0
726B:												
Sissabagama----------	0-10	2-12	1.35-1.60	6.00-20	0.09-0.11	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	10-31	2-12	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	31-45	2-12	1.50-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
	45-80	5-15	1.50-1.65	0.20-0.60	0.05-0.20	0.0-2.9	0.0-0.5	.24	.24			
742B:												
Milaca----------	0-4	5-15	1.35-1.55	0.60-2.00	0.12-0.14	0.0-2.9	1.0-4.0	.24	.24	4	3	86
	4-13	5-12	1.40-1.60	0.60-2.00	0.12-0.22	0.0-2.9	0.5-2.0	.37	.37			
	13-17	8-18	1.40-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	17-43	10-18	1.50-1.70	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	43-80	5-16	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.24	.24			
742C:												
Milaca----------	0-4	5-15	1.35-1.55	0.60-2.00	0.12-0.14	0.0-2.9	1.0-4.0	.24	.24	4	3	86
	4-13	5-12	1.40-1.60	0.60-2.00	0.12-0.22	0.0-2.9	0.5-2.0	.37	.37			
	13-17	8-18	1.40-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	17-43	10-18	1.50-1.70	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	43-80	5-16	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.24	.24			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
742D:												
Milaca----------	0-4	5-15	1.35-1.55	0.60-2.00	0.12-0.14	0.0-2.9	1.0-4.0	.24	.24	4	3	86
	4-13	5-12	1.40-1.60	0.60-2.00	0.12-0.22	0.0-2.9	0.5-2.0	.37	.37			
	13-17	8-18	1.40-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	17-43	10-18	1.50-1.70	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	43-80	5-16	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.24	.24			
755A:												
Moppet----------	0-4	10-15	1.40-1.70	0.60-2.00	0.13-0.22	0.0-2.9	2.0-3.0	.28	.28	4	3	86
	4-10	8-17	1.45-1.70	0.60-2.00	0.15-0.22	0.0-2.9	0.5-1.0	.24	.24			
	10-39	8-17	1.45-1.70	0.60-2.00	0.15-0.22	0.0-2.9	0.5-1.0	.24	.24			
	39-60	2-10	1.60-1.75	6.00-20	0.03-0.09	0.0-2.9	0.5-1.0	.10	.15			
Fordum----------	0-6	10-23	1.35-1.45	0.60-2.00	0.17-0.24	0.0-2.9	4.0-12	.32	.32	4	8	0
	6-18	8-17	1.40-1.50	0.60-6.00	0.10-0.22	0.0-2.9	1.0-12	.37	.37			
	18-30	8-17	1.40-1.50	0.60-6.00	0.10-0.22	0.0-2.9	1.0-12	.37	.37			
	30-60	2-5	1.55-1.70	6.00-20	0.04-0.10	0.0-2.9	0.5-1.0	.15	.15			
771A:												
Lenroot----------	0-4	2-15	1.40-1.60	6.00-20	0.09-0.11	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	4-8	0-10	1.45-1.75	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.05	.10			
	8-14	0-10	1.45-1.75	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.05	.10			
	14-21	0-5	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
	21-80	0-5	1.45-1.75	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
812B:												
Mora----------	0-4	5-15	1.35-1.55	0.60-2.00	0.12-0.14	0.0-2.9	1.0-4.0	.24	.24	4	3	86
	4-9	5-12	1.40-1.60	0.60-2.00	0.12-0.22	0.0-2.9	0.5-2.0	.28	.28			
	9-14	8-18	1.40-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	14-36	10-18	1.50-1.70	0.60-2.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	36-46	5-16	1.60-1.80	0.60-2.00	0.11-0.16	0.0-2.9	0.0-0.5	.24	.24			
	46-80	5-16	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.24	.24			
825A:												
Meehan----------	0-4	1-5	1.35-1.65	6.00-20	0.06-0.08	0.0-2.9	0.5-3.0	.02	.02	5	1	220
	4-29	1-4	1.60-1.70	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.15	.15			
	29-60	1-4	1.60-1.70	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
896A:												
Wurtsmith----------	0-6	1-5	1.35-1.65	6.00-20	0.06-0.08	0.0-2.9	0.5-3.0	.02	.02	5	1	220
	6-33	0-5	1.40-1.60	6.00-20	0.06-0.08	0.0-2.9	0.0-0.5	.15	.15			
	92-60	0-5	1.50-1.65	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
980A:												
Soderbeck----------	0-4	9-15	1.45-1.55	0.60-2.00	0.10-0.14	0.0-2.9	2.0-6.0	.10	.32	1	5	48
	4-18	12-18	1.55-1.65	0.60-2.00	0.09-0.13	0.0-2.9	0.0-0.5	---	---			
	18-28	12-18	1.65-1.85	0.60-2.00	0.05-0.07	0.0-2.9	0.0-0.5	---	---			
	28-42	1-3	1.70-1.80	6.00-60	0.01-0.03	0.0-0.0	0.0-0.5	---	---			
	42-55	---	---	2.00-20	0.05-0.07	---	---	---	---			
	55-80	---	---	0.06-2.00	---	---	---	---	---			
1070C:												
Fremstadt----------	0-5	5-15	1.35-1.60	2.00-20	0.12-0.14	0.0-2.9	1.0-2.0	.20	.20	5	8	0
	5-33	2-10	1.45-1.80	2.00-20	0.08-0.11	0.0-2.9	0.6-1.0	.15	.17			
	33-37	5-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	37-45	2-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	45-70	2-10	1.50-1.70	2.00-20	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
	70-80	2-10	1.50-1.70	2.00-6.00	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
1070C:												
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
1070D:												
Fremstadt----------	0-5	5-15	1.35-1.60	2.00-20	0.12-0.14	0.0-2.9	1.0-2.0	.20	.20	5	8	0
	5-33	2-10	1.45-1.80	2.00-20	0.08-0.11	0.0-2.9	0.6-1.0	.15	.17			
	33-37	5-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	37-45	2-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	45-70	2-10	1.50-1.70	2.00-20	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
	70-80	2-10	1.50-1.70	2.00-6.00	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
1080B:												
Spoonerhill----------	0-3	2-15	1.35-1.70	2.00-6.00	0.12-0.14	0.0-2.9	1.0-2.0	.24	.24	5	8	0
	3-12	2-15	1.45-1.80	2.00-6.00	0.06-0.14	0.0-2.9	0.5-1.0	.17	.24			
	12-16	2-15	1.55-1.80	2.00-6.00	0.05-0.13	0.0-2.9	0.0-0.5	.17	.24			
	16-34	2-10	1.55-1.80	2.00-6.00	0.03-0.10	0.0-2.9	0.0-0.5	.17	.24			
	34-46	2-10	1.80-1.85	0.20-0.60	0.03-0.10	0.0-2.9	0.0-0.5	.17	.17			
	46-80	2-10	1.80-1.85	0.20-0.60	0.03-0.10	0.0-2.9	0.0-0.5	.17	.17			
Spoonerhill, stony----	0-3	2-15	1.35-1.70	2.00-6.00	0.12-0.14	0.0-2.9	1.0-2.0	.24	.24	5	8	0
	3-12	2-15	1.45-1.80	2.00-6.00	0.06-0.14	0.0-2.9	0.5-1.0	.17	.24			
	12-16	2-15	1.55-1.80	2.00-6.00	0.05-0.13	0.0-2.9	0.0-0.5	.17	.24			
	16-34	2-10	1.55-1.80	2.00-6.00	0.03-0.10	0.0-2.9	0.0-0.5	.17	.24			
	34-46	2-10	1.80-1.85	0.20-0.60	0.03-0.10	0.0-2.9	0.0-0.5	.17	.17			
	46-80	2-10	1.80-1.85	0.20-0.60	0.03-0.10	0.0-2.9	0.0-0.5	.17	.17			
Cress----------	0-3	5-18	1.25-1.60	0.60-2.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	3-15	5-18	1.40-1.70	0.60-2.00	0.12-0.17	0.0-2.9	0.5-1.0	.24	.24			
	15-31	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-36	0-8	1.50-1.80	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.17	.17			
	36-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
2002. Udorthents, earthen dams												
2015. Pits												
2050. Landfill												
3011A:												
Barronett----------	0-9	8-22	1.25-1.50	0.60-2.00	0.20-0.26	0.0-2.9	3.0-10	.32	.32	5	5	56
	9-16	8-20	1.45-1.65	0.60-2.00	0.18-0.22	0.0-2.9	0.0-2.0	.43	.43			
	16-34	18-27	1.40-1.65	0.60-2.00	0.18-0.22	3.0-5.9	0.0-0.5	.43	.43			
	34-60	8-20	1.40-1.65	0.20-0.60	0.12-0.22	0.0-2.9	0.0-0.5	.37	.37			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
3082E:												
Braham----------	0-8	2-14	1.45-1.55	6.00-20	0.10-0.12	0.0-0.0	0.5-1.5	.10	.10	5	2	134
	8-28	2-14	1.50-1.60	6.00-20	0.09-0.11	0.0-0.0	0.2-0.8	---	---			
	28-42	20-30	1.45-1.55	0.20-2.00	0.15-0.19	3.0-5.9	0.0-0.5	---	---			
	42-48	12-24	1.55-1.65	0.60-2.00	0.15-0.19	0.0-2.9	0.0-0.5	---	---			
	48-80	12-24	1.55-1.75	0.60-2.00	0.15-0.19	0.0-2.9	0.0-0.5	---	---			
Shawano----------	0-2	1-3	1.00-1.35	6.00-20	0.07-0.09	0.0-2.9	0.5-1.0	.05	.05	5	1	220
	2-4	1-3	1.45-1.70	6.00-20	0.07-0.09	0.0-2.9	0.0-0.5	.05	.05			
	4-26	1-3	1.45-1.70	6.00-20	0.07-0.09	0.0-2.9	0.0-0.5	.05	.05			
	26-60	1-3	1.50-1.70	6.00-20	0.05-0.08	0.0-2.9	0.0-0.5	.05	.05			
3114A:												
Saprists----------	0-80	0-0	0.10-0.25	0.20-5.95	0.35-0.45	---	25-99	.02	.02	3	8	0
Aquents----------	0-3	0-0	0.10-0.35	6.00-20	0.35-0.55	---	30-80	.02	.02	5	8	0
	3-8	1-4	1.35-1.65	6.00-20	0.07-0.12	0.0-2.9	10-20	.10	.10			
	8-16	1-4	1.70-1.80	6.00-20	0.06-0.11	0.0-2.9	0.1-2.0	.15	.17			
	16-22	1-4	1.70-1.80	6.00-20	0.06-0.11	0.0-2.9	0.1-2.0	.15	.17			
	22-60	1-4	1.70-1.80	6.00-20	0.05-0.15	0.0-2.9	0.0-0.5	.15	.15			
Aquepts----------	0-4	0-0	0.15-0.45	2.00-6.00	0.35-0.45	---	30-60	.02	.02	4	8	0
	4-15	10-17	1.50-1.60	0.60-2.00	0.11-0.19	0.0-2.9	0.0-2.0	.37	.37			
	15-28	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.32	.32			
	28-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
3125A:												
Meehan----------	0-5	4-10	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-3.0	.10	.10	5	2	134
	5-8	1-5	1.60-1.70	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.15	.15			
	8-28	1-5	1.60-1.70	6.00-20	0.02-0.10	0.0-2.9	0.0-0.5	.15	.15			
	28-60	0-4	1.60-1.70	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
3126A:												
Wurtsmith----------	0-9	0-10	1.30-1.65	6.00-20	0.07-0.09	0.0-2.9	1.0-6.0	.10	.10	5	2	134
	9-37	0-5	1.40-1.60	6.00-20	0.06-0.07	0.0-2.9	0.0-0.5	.15	.15			
	37-60	0-5	1.50-1.65	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
3312B:												
Glendenning, very stony----------	0-5	5-15	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-2.0	.24	.24	4	8	0
	5-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-20	5-15	1.40-1.70	0.60-2.00	0.07-0.19	0.0-2.9	0.0-0.5	.17	.24			
	20-26	5-16	1.40-1.70	0.60-2.00	0.07-0.19	0.0-2.9	0.0-0.5	.17	.24			
	26-40	7-17	1.65-1.90	0.20-0.60	0.07-0.19	0.0-2.9	0.0-0.5	.17	.24			
	40-65	7-17	1.65-1.90	0.20-0.60	0.07-0.19	0.0-2.9	0.0-0.5	.17	.24			
	65-80	5-15	1.80-2.00	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.17	.24			
Glendenning----------	0-7	5-15	1.40-1.65	0.60-2.00	0.12-0.14	0.0-2.9	1.0-2.0	.24	.24	4	8	0
	7-15	4-14	1.40-1.70	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	15-20	5-15	1.40-1.70	0.60-2.00	0.07-0.19	0.0-2.9	0.0-0.5	.17	.24			
	20-26	5-16	1.40-1.70	0.60-2.00	0.07-0.19	0.0-2.9	0.0-0.5	.17	.24			
	26-40	7-17	1.65-1.90	0.20-0.60	0.07-0.19	0.0-2.9	0.0-0.5	.17	.24			
	40-65	7-17	1.65-1.90	0.20-0.60	0.07-0.19	0.0-2.9	0.0-0.5	.17	.24			
	65-80	5-15	1.80-2.00	0.01-0.06	0.02-0.05	0.0-2.9	0.0-0.5	.17	.24			
3336A:												
Fenander----------	0-9	3-8	1.35-1.65	0.60-2.00	0.15-0.17	0.0-2.9	2.0-3.0	.28	.28	5	3	86
	9-15	5-15	1.40-1.70	0.60-2.00	0.12-0.22	0.0-2.9	0.5-1.0	.24	.24			
	15-27	10-18	1.50-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.5-1.0	.24	.24			
	27-33	10-18	1.50-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.5-1.0	.24	.24			
	33-80	5-20	1.40-1.80	0.20-0.60	0.08-0.16	0.0-2.9	0.0-0.5	.32	.32			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
3403A:												
Loxley----------	0-13	0-0	0.30-0.40	6.00-20	0.55-0.65	---	70-90	.02	.02	3	8	0
	13-60	0-0	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	.02	.02			
Beseman----------	0-36	0-0	0.10-0.25	0.60-6.00	0.35-0.45	---	25-75	.02	.02	2	8	0
	36-60	8-25	1.35-1.60	0.20-0.60	0.09-0.22	0.0-2.9	0.5-1.0	.43	.43			
Dawson----------	0-8	0-0	0.15-0.30	6.00-20	0.55-0.65	---	65-85	.02	.02	2	8	0
	8-38	0-0	0.15-0.40	0.20-6.00	0.35-0.45	---	65-85	.02	.02			
	38-40	0-15	1.55-1.75	0.60-2.00	0.18-0.20	0.0-2.9	5.0-15	.37	.37			
	40-60	0-10	1.55-1.75	6.00-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
3429B:												
Lara----------	0-10	2-10	1.55-1.65	2.00-20	0.10-0.12	0.0-2.9	1.0-2.0	.10	.10	4	2	134
	10-35	1-10	1.55-1.70	2.00-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	35-42	1-10	1.55-1.70	2.00-20	0.05-0.10	0.0-2.9	0.0-0.0	.28	.28			
	42-55	60-80	1.25-1.50	0.01-0.06	0.08-0.12	6.0-8.9	0.0-0.0	.28	.28			
	55-75	60-80	1.25-1.50	0.01-0.06	0.08-0.12	6.0-8.9	0.0-0.0	.28	.28			
	75-80	40-80	1.25-1.50	0.01-0.06	0.08-0.12	6.0-8.9	0.0-0.0	.28	.28			
3429C:												
Lara----------	0-10	2-10	1.55-1.65	2.00-20	0.10-0.12	0.0-2.9	1.0-2.0	.10	.10	4	2	134
	10-35	1-10	1.55-1.70	2.00-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	35-42	1-10	1.55-1.70	2.00-20	0.05-0.10	0.0-2.9	0.0-0.0	.28	.28			
	42-55	60-80	1.25-1.50	0.01-0.06	0.08-0.12	6.0-8.9	0.0-0.0	.28	.28			
	55-75	60-80	1.25-1.50	0.01-0.06	0.08-0.12	6.0-8.9	0.0-0.0	.28	.28			
	75-80	40-80	1.25-1.50	0.01-0.06	0.08-0.12	6.0-8.9	0.0-0.0	.28	.28			
3446A:												
Newson----------	0-3	0-0	0.10-0.35	6.00-20	0.35-0.55	---	30-80	.02	.02	5	8	0
	3-8	1-4	1.35-1.65	6.00-20	0.07-0.12	0.0-2.9	10-20	.10	.10			
	8-16	1-4	1.70-1.80	6.00-20	0.06-0.11	0.0-2.9	0.1-2.0	.15	.17			
	16-22	1-4	1.70-1.80	6.00-20	0.06-0.11	0.0-2.9	0.1-2.0	.15	.17			
	22-60	1-4	1.70-1.80	6.00-20	0.05-0.15	0.0-2.9	0.0-0.5	.15	.15			
3448B:												
Grettum----------	0-3	2-12	1.35-1.60	6.00-20	0.09-0.11	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	3-32	2-12	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	32-75	2-12	1.40-1.65	2.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	75-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
3448C:												
Grettum----------	0-3	2-12	1.35-1.60	6.00-20	0.09-0.11	0.0-2.9	1.0-3.0	.10	.10	5	2	134
	3-32	2-12	1.40-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	32-75	2-12	1.40-1.65	2.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	75-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
3510B:												
Pomroy----------	0-3	2-10	1.55-1.65	6.00-20	0.09-0.12	0.0-2.9	0.5-1.0	.10	.10	4	2	134
	3-30	2-10	1.55-1.70	6.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.15			
	30-45	5-18	1.65-1.90	0.60-2.00	0.08-0.13	0.0-2.9	0.0-0.5	.24	.17			
	45-80	3-15	1.65-1.90	0.60-2.00	0.08-0.13	0.0-2.9	0.0-0.5	.24	.17			
Fremstadt----------	0-5	2-12	1.55-1.65	2.00-6.00	0.09-0.12	0.0-2.9	1.0-2.0	.10	.10	5	2	134
	5-33	2-10	1.45-1.80	2.00-20	0.08-0.11	0.0-2.9	0.6-1.0	.15	.17			
	33-37	5-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	37-45	2-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	45-70	2-10	1.50-1.70	2.00-20	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
	70-80	2-10	1.50-1.70	2.00-6.00	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
3510B:												
Fremstadt, stony------	0-5	2-12	1.55-1.65	2.00-6.00	0.09-0.12	0.0-2.9	1.0-2.0	.10	.10	5	2	134
	5-33	2-10	1.45-1.80	2.00-20	0.08-0.11	0.0-2.9	0.6-1.0	.15	.17			
	33-37	5-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	37-45	2-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	45-70	2-10	1.50-1.70	2.00-20	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
	70-80	2-10	1.50-1.70	2.00-6.00	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
3510C:												
Pomroy----------	0-3	2-10	1.55-1.65	6.00-20	0.09-0.12	0.0-2.9	0.5-1.0	.10	.10	4	2	134
	3-30	2-10	1.55-1.70	6.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.15			
	30-45	5-18	1.65-1.90	0.60-2.00	0.08-0.13	0.0-2.9	0.0-0.5	.24	.17			
	45-80	3-15	1.65-1.90	0.60-2.00	0.08-0.13	0.0-2.9	0.0-0.5	.24	.17			
Fremstadt----------	0-5	2-12	1.55-1.65	2.00-6.00	0.09-0.12	0.0-2.9	1.0-2.0	.10	.10	5	2	134
	5-33	2-10	1.45-1.80	2.00-20	0.08-0.11	0.0-2.9	0.6-1.0	.15	.17			
	33-37	5-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	37-45	2-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	45-70	2-10	1.50-1.70	2.00-20	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
	70-80	2-10	1.50-1.70	2.00-6.00	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
Fremstadt, stony------	0-5	2-12	1.55-1.65	2.00-6.00	0.09-0.12	0.0-2.9	1.0-2.0	.10	.10	5	2	134
	5-33	2-10	1.45-1.80	2.00-20	0.08-0.11	0.0-2.9	0.6-1.0	.15	.17			
	33-37	5-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	37-45	2-15	1.50-1.80	2.00-20	0.05-0.11	0.0-2.9	0.0-0.5	.15	.17			
	45-70	2-10	1.50-1.70	2.00-20	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
	70-80	2-10	1.50-1.70	2.00-6.00	0.04-0.10	0.0-2.9	0.0-0.5	.15	.17			
3511A:												
Bushville----------	0-4	2-10	1.40-1.50	6.00-20	0.10-0.12	0.0-2.9	0.5-1.0	.10	.10	4	2	134
	4-21	2-8	1.50-1.70	6.00-20	0.06-0.09	0.0-2.9	0.0-0.5	.10	.10			
	21-24	8-16	1.55-1.80	0.60-2.00	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			
	24-30	10-18	1.55-1.80	0.60-2.00	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			
	30-45	8-16	1.65-1.80	0.60-2.00	0.11-0.13	0.0-2.9	0.0-0.5	.24	.24			
	45-60	5-15	1.80-2.00	0.01-0.06	0.02-0.04	0.0-2.9	0.0-0.5	.24	.24			
3516A:												
Slimlake----------	0-6	4-10	1.30-1.70	2.00-6.00	0.12-0.14	0.0-2.9	1.0-3.0	.20	.20	3	3	86
	6-17	4-10	1.40-1.70	2.00-6.00	0.12-0.14	0.0-2.9	0.0-0.5	.24	.24			
	17-42	0-3	1.55-1.70	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
	42-53	0-3	1.55-1.70	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
	53-80	0-3	1.55-1.70	6.00-20	0.02-0.07	0.0-2.9	0.0-0.5	.10	.15			
3625A:												
Lino----------	0-7	2-10	1.40-1.60	6.00-20	0.10-0.12	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	7-45	2-10	1.50-1.70	6.00-20	0.06-0.10	0.0-2.9	0.0-0.5	.17	.17			
	45-60	2-5	1.55-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
3626A:												
Crex----------	0-1	0-0	0.15-0.30	0.60-6.00	0.55-0.65	---	65-85	.02	.02	5	2	134
	1-7	2-7	1.35-1.60	6.00-20	0.10-0.12	0.0-2.9	0.5-8.0	.10	.10			
	7-40	1-4	1.45-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
	40-71	1-4	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
	71-80	1-4	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
3629B:												
Perida----------	0-9	6-8	1.35-1.65	6.00-20	0.09-0.11	0.0-2.9	0.5-2.0	.10	.10	4	2	134
	9-43	0-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	43-45	2-8	1.45-1.65	6.00-20	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	45-60	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	60-74	50-80	1.45-1.70	0.01-0.06	0.08-0.10	6.0-8.9	0.0-0.5	.28	.28			
	74-80	1-10	1.50-1.70	6.00-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 23.--Physical Properties of the Soils--Continued

Map symbol and soil name	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					
3636B:												
Plainbo----------	0-4	1-9	1.60-1.70	6.00-20	0.07-0.12	0.0-2.9	1.0-2.0	.02	.02	3	1	220
	4-13	1-9	1.55-1.70	6.00-20	0.04-0.11	0.0-2.9	0.0-0.5	.15	.15			
	13-32	1-9	1.55-1.70	6.00-20	0.03-0.10	0.0-2.9	0.0-0.5	.15	.15			
	32-75	0-0	---	0.20-2.00	---	---	0.0-0.0	---	---			
	75-80	0-0	---	---	---	---	0.0-0.0	---	---			
3636C:												
Plainbo----------	0-4	1-9	1.60-1.70	6.00-20	0.07-0.12	0.0-2.9	1.0-2.0	.02	.02	3	1	220
	4-13	1-9	1.55-1.70	6.00-20	0.04-0.11	0.0-2.9	0.0-0.5	.15	.15			
	13-32	1-9	1.55-1.70	6.00-20	0.03-0.10	0.0-2.9	0.0-0.5	.15	.15			
	32-75	0-0	---	0.20-2.00	---	---	0.0-0.0	---	---			
	75-80	0-0	---	---	---	---	0.0-0.0	---	---			
M-W.												
Miscellaneous water												
W.												
Water												

Table 24.--Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
3A:					
Totagatic----------	0-4	150-230	---	4.5-6.5	---
	4-8	1.0-3.0	---	4.5-6.5	0
	8-17	1.0-3.0	---	4.5-6.5	0
	17-28	1.0-3.0	---	4.5-6.5	0
	28-46	1.0-3.0	---	4.5-6.5	0
	46-70	1.0-3.0	---	4.5-6.5	0
	70-80	1.0-3.0	---	4.5-6.5	0
Bowstring----------	0-38	140-180	---	5.6-8.4	0
	38-47	1.0-3.0	---	5.6-8.4	0
	47-80	140-180	---	5.6-8.4	0
Ausable----------	0-10	150-230	---	5.1-7.3	---
	10-60	1.0-9.0	---	6.1-7.8	0
12A:					
Makwa----------	0-8	150-204	---	5.1-7.3	0
	8-16	12-28	---	5.1-7.3	0
	16-43	4.0-13	---	5.1-7.3	0
	43-65	4.0-22	---	5.1-7.3	0
	65-80	14-36	---	6.1-7.8	0
22A:					
Comstock----------	0-8	6.0-25	---	4.5-7.3	0
	8-15	---	3.0-20	4.5-6.0	0
	15-21	---	3.0-25	4.5-6.0	0
	21-34	---	4.0-25	4.5-6.0	0
	34-44	---	2.0-25	4.5-6.0	0
	44-60	2.0-15	2.0-25	5.1-7.3	0
27A:					
Scott Lake----------	0-10	5.0-20	---	4.5-7.3	0
	10-17	1.0-15	---	4.5-6.5	0
	17-24	2.0-15	---	4.5-6.5	0
	24-31	0.0-10	---	4.5-6.5	0
	31-80	0.0-6.0	---	4.5-6.5	0
28B:					
Haugen, very stony---	0-4	3.0-17	---	4.5-6.5	0
	4-15	1.0-15	---	4.5-6.0	0
	15-23	1.0-15	---	4.5-6.0	0
	23-35	1.0-15	---	4.5-6.0	0
	35-49	1.0-15	---	5.6-6.5	0
	49-79	1.0-15	---	5.6-6.5	0
	79-80	1.0-15	---	5.6-6.5	0
Haugen----------	0-7	3.0-17	---	4.5-6.5	0
	7-15	1.0-15	---	4.5-6.0	0
	15-23	1.0-15	---	4.5-6.0	0
	23-35	1.0-15	---	4.5-6.0	0
	35-49	1.0-15	---	5.6-6.5	0
	49-79	1.0-15	---	5.6-6.5	0
	79-80	1.0-15	---	5.6-6.5	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
28B:					
Rosholt, very stony--	0-4	3.0-15	---	4.5-7.3	0
	4-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
Rosholt----------	0-8	3.0-15	---	4.5-7.3	0
	8-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
28C:					
Haugen, very stony---	0-4	3.0-17	---	4.5-6.5	0
	4-15	1.0-15	---	4.5-6.0	0
	15-23	1.0-15	---	4.5-6.0	0
	23-35	1.0-15	---	4.5-6.0	0
	35-49	1.0-15	---	5.6-6.5	0
	49-79	1.0-15	---	5.6-6.5	0
	79-80	1.0-15	---	5.6-6.5	0
Haugen----------	0-7	3.0-17	---	4.5-6.5	0
	7-15	1.0-15	---	4.5-6.0	0
	15-23	1.0-15	---	4.5-6.0	0
	23-35	1.0-15	---	4.5-6.0	0
	35-49	1.0-15	---	5.6-6.5	0
	49-79	1.0-15	---	5.6-6.5	0
	79-80	1.0-15	---	5.6-6.5	0
Rosholt, very stony--	0-4	3.0-15	---	4.5-7.3	0
	4-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
Rosholt----------	0-8	3.0-15	---	4.5-7.3	0
	8-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
38A:					
Rosholt----------	0-8	3.0-15	---	4.5-7.3	0
	8-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
38B:					
Rosholt----------	0-8	3.0-15	---	4.5-7.3	0
	8-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
38C:					
Rosholt----------	0-8	3.0-15	---	4.5-7.3	0
	8-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
38D:					
Rosholt----------	0-8	3.0-15	---	4.5-7.3	0
	8-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
42D:					
Amery----------	0-3	3.0-15	---	4.5-6.5	0
	3-22	---	1.0-15	4.5-6.0	0
	22-34	1.0-15	---	5.1-6.5	0
	34-41	1.0-15	---	5.1-6.5	0
	41-57	1.0-15	---	5.1-6.5	0
	57-71	1.0-15	---	5.1-6.5	0
	71-80	1.0-15	---	5.6-6.5	0
43B:					
Antigo----------	0-9	4.0-20	---	4.5-7.3	0
	9-12	3.0-15	---	4.5-6.5	0
	12-19	3.0-15	---	4.5-6.5	0
	19-28	3.0-15	---	4.5-6.5	0
	28-31	0.0-15	---	4.5-6.5	0
	31-33	0.0-15	---	4.5-6.5	0
	33-60	0.0-6.0	---	4.5-6.5	0
43C:					
Antigo----------	0-9	4.0-20	---	4.5-7.3	0
	9-12	3.0-15	---	4.5-6.5	0
	12-19	3.0-15	---	4.5-6.5	0
	19-28	3.0-15	---	4.5-6.5	0
	28-31	0.0-15	---	4.5-6.5	0
	31-33	0.0-15	---	4.5-6.5	0
	33-60	0.0-6.0	---	4.5-6.5	0
63A:					
Crystal Lake---------	0-8	6.0-25	---	4.5-7.3	0
	8-12	2.0-20	---	4.5-7.3	0
	12-20	---	3.0-25	4.5-6.0	0
	20-32	---	4.0-25	4.5-6.0	0
	32-60	2.0-15	2.0-25	4.5-7.3	0
63B:					
Crystal Lake---------	0-8	6.0-25	---	4.5-7.3	0
	8-12	2.0-20	---	4.5-7.3	0
	12-20	---	3.0-25	4.5-6.0	0
	20-32	---	4.0-25	4.5-6.0	0
	32-60	2.0-15	2.0-25	4.5-7.3	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
63C:					
Crystal Lake---------	0-8	6.0-25	---	4.5-7.3	0
	8-12	2.0-20	---	4.5-7.3	0
	12-20	---	3.0-25	4.5-6.0	0
	20-32	---	4.0-25	4.5-6.0	0
	32-60	2.0-15	2.0-25	4.5-7.3	0
64A:					
Totagatic----------	0-4	150-230	---	4.5-6.5	---
	4-8	1.0-3.0	---	4.5-6.5	0
	8-17	1.0-3.0	---	4.5-6.5	0
	17-28	1.0-3.0	---	4.5-6.5	0
	28-46	1.0-3.0	---	4.5-6.5	0
	46-70	1.0-3.0	---	4.5-6.5	0
	70-80	1.0-3.0	---	4.5-6.5	0
Winterfield----------	0-7	2.0-15	---	5.6-7.8	0
	7-60	1.0-5.0	---	5.6-8.4	0
69C:					
Keweenaw----------	0-2	3.0-9.0	---	4.5-6.5	0
	2-4	3.0-12	---	4.5-6.5	0
	4-16	1.0-9.0	---	4.5-6.5	0
	16-20	0.0-15	---	4.5-6.5	0
	20-27	0.0-15	---	4.5-6.5	0
	27-43	0.0-15	---	4.5-6.5	0
	43-75	0.0-15	---	4.5-6.5	0
	75-80	0.0-15	---	5.1-6.5	0
Sayner----------	0-2	2.0-10	---	4.5-6.5	0
	2-4	1.0-6.0	---	4.5-6.5	0
	4-7	---	2.0-8.0	4.5-6.0	0
	7-14	---	2.0-8.0	4.5-6.0	0
	14-22	0.0-4.0	---	4.5-6.5	0
	22-60	0.0-6.0	---	4.5-6.5	0
Vilas----------	0-2	2.0-10	---	4.5-7.3	0
	2-4	1.0-6.0	---	4.5-6.5	0
	4-11	2.0-9.0	---	4.5-6.5	0
	11-23	0.0-5.0	---	4.5-6.5	0
	23-32	0.0-3.0	---	4.5-6.5	0
	32-80	0.0-3.0	---	4.5-6.5	0
69E:					
Keweenaw----------	0-2	3.0-9.0	---	4.5-6.5	0
	2-4	3.0-12	---	4.5-6.5	0
	4-16	1.0-9.0	---	4.5-6.5	0
	16-20	0.0-15	---	4.5-6.5	0
	20-27	0.0-15	---	4.5-6.5	0
	27-43	0.0-15	---	4.5-6.5	0
	43-75	0.0-15	---	4.5-6.5	0
	75-80	0.0-15	---	5.1-6.5	0
Sayner----------	0-2	2.0-10	---	4.5-6.5	0
	2-4	1.0-6.0	---	4.5-6.5	0
	4-7	---	2.0-8.0	4.5-6.0	0
	7-14	---	2.0-8.0	4.5-6.0	0
	14-22	0.0-4.0	---	4.5-6.5	0
	22-60	0.0-6.0	---	4.5-6.5	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
69E:					
Vilas----------	0-2	2.0-10	---	4.5-7.3	0
	2-4	1.0-6.0	---	4.5-6.5	0
	4-11	2.0-9.0	---	4.5-6.5	0
	11-23	0.0-5.0	---	4.5-6.5	0
	23-32	0.0-3.0	---	4.5-6.5	0
	32-80	0.0-3.0	---	4.5-6.5	0
82B:					
Cutaway----------	0-10	2.0-14	---	5.1-6.5	0
	10-21	2.0-14	---	5.1-6.5	0
	21-24	4.0-23	---	5.1-6.5	0
	24-35	14-22	---	5.6-7.3	0
	35-53	8.0-18	---	5.6-7.3	0-2
	53-80	8.0-18	---	7.4-8.4	1-3
Branstad----------	0-9	7.0-16	---	5.1-7.8	0
	9-14	6.0-17	---	5.1-7.8	0
	14-20	7.0-19	---	5.1-7.8	0
	20-45	7.0-19	---	5.1-7.8	0
	45-55	7.0-19	---	5.1-7.8	0
	55-68	7.0-19	---	6.6-8.4	0
	68-80	7.0-19	---	7.4-8.4	1-10
82C:					
Cutaway----------	0-10	2.0-14	---	5.1-6.5	0
	10-21	2.0-14	---	5.1-6.5	0
	21-24	4.0-23	---	5.1-6.5	0
	24-35	14-22	---	5.6-7.3	0
	35-53	8.0-18	---	5.6-7.3	0-2
	53-80	8.0-18	---	7.4-8.4	1-3
Branstad----------	0-9	7.0-16	---	5.1-7.8	0
	9-14	6.0-17	---	5.1-7.8	0
	14-20	7.0-19	---	5.1-7.8	0
	20-45	7.0-19	---	5.1-7.8	0
	45-55	7.0-19	---	5.1-7.8	0
	55-68	7.0-19	---	6.6-8.4	0
	68-80	7.0-19	---	7.4-8.4	1-10
83A:					
Smestad----------	0-10	4.0-15	---	5.1-6.5	0
	10-32	2.0-10	---	5.1-6.5	0
	32-37	5.0-14	---	4.5-7.3	0
	37-57	42-57	---	5.1-7.3	0
	57-80	39-54	---	7.4-8.4	3-7
85B:					
Taylor----------	0-9	9.0-20	---	5.6-7.3	0
	9-14	8.0-29	---	5.6-7.3	0
	14-25	42-66	---	5.1-7.8	0
	25-32	39-57	---	7.4-8.4	0-5
	32-60	35-57	---	7.4-8.4	1-10
85C:					
Taylor----------	0-9	9.0-20	---	5.6-7.3	0
	9-14	8.0-29	---	5.6-7.3	0
	14-25	42-66	---	5.1-7.8	0
	25-32	39-57	---	7.4-8.4	0-5
	32-60	35-57	---	7.4-8.4	1-10

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
86A:					
Indus	0-9	17-35	---	5.1-6.5	0
	9-21	30-60	---	5.6-7.3	0
	21-25	30-60	---	5.6-7.3	0
	25-39	25-55	---	7.4-8.4	5-30
	39-60	25-55	---	7.4-8.4	0-20
Alango	0-9	17-35	---	5.1-6.5	0
	9-10	15-25	---	5.1-7.3	0
	10-28	30-60	---	5.6-7.3	0
	28-60	25-55	---	7.4-8.4	10-30
	60-80	25-55	---	7.4-8.4	5-25
89A:					
Wildwood	0-12	140-200	---	5.1-6.5	0
	12-17	30-60	---	5.6-7.3	0
	17-24	30-60	---	5.6-7.3	0
	24-60	30-60	---	7.4-8.4	5-30
96B:					
Karlsborg	0-9	2.0-10	---	4.5-6.5	0
	9-28	2.0-10	---	4.5-6.5	0
	28-48	12-65	---	4.5-6.5	0
	48-80	1.0-5.0	---	4.5-6.5	0
96C:					
Karlsborg	0-9	2.0-10	---	4.5-6.5	0
	9-28	2.0-10	---	4.5-6.5	0
	28-48	12-65	---	4.5-6.5	0
	48-80	1.0-5.0	---	4.5-6.5	0
96D:					
Karlsborg	0-9	2.0-10	---	4.5-6.5	0
	9-28	2.0-10	---	4.5-6.5	0
	28-48	12-65	---	4.5-6.5	0
	48-80	1.0-5.0	---	4.5-6.5	0
100B:					
Menahga	0-2	1.0-8.0	---	4.5-5.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
100C:					
Menahga	0-1	---	80-120	4.5-5.5	---
	1-2	1.0-8.0	---	4.5-5.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
100D:					
Menahga	0-1	---	80-120	4.5-5.5	---
	1-2	1.0-8.0	---	4.5-5.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
120B:					
Kost	0-9	1.0-7.0	---	5.1-7.3	0
	9-25	1.0-7.0	---	5.1-7.3	0
	25-36	0.0-4.0	---	5.1-7.3	0
	36-42	0.0-4.0	---	5.1-7.3	0
	42-60	0.0-4.0	---	5.6-7.3	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
127D:					
Amery----------	0-3	3.0-15	---	4.5-6.5	0
	3-22	---	1.0-15	4.5-6.0	0
	22-34	1.0-15	---	5.1-6.5	0
	34-41	1.0-15	---	5.1-6.5	0
	41-57	1.0-15	---	5.1-6.5	0
	57-71	1.0-15	---	5.1-6.5	0
	71-80	1.0-15	---	5.6-6.5	0
Rosholt----------	0-4	3.0-15	---	4.5-7.3	0
	4-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
127E:					
Amery----------	0-3	3.0-15	---	4.5-6.5	0
	3-22	---	1.0-15	4.5-6.0	0
	22-34	1.0-15	---	5.1-6.5	0
	34-41	1.0-15	---	5.1-6.5	0
	41-57	1.0-15	---	5.1-6.5	0
	57-71	1.0-15	---	5.1-6.5	0
	71-80	1.0-15	---	5.6-6.5	0
Rosholt----------	0-4	3.0-15	---	4.5-7.3	0
	4-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
151A:					
Bluffton----------	0-8	5.0-25	---	5.6-7.8	0
	8-19	4.0-25	---	5.6-7.8	0
	19-22	4.0-25	---	7.4-8.4	0
	22-26	4.0-25	---	7.4-8.4	0
	26-38	4.0-25	---	7.4-8.4	0
	38-60	4.0-25	---	7.4-8.4	0
152A:					
Alstad----------	0-9	5.0-25	---	4.5-7.8	0
	9-15	1.0-15	---	4.5-7.8	0
	15-18	2.0-20	---	4.5-7.8	0
	18-24	2.0-20	---	6.6-8.4	0
	24-49	4.0-25	---	6.6-8.4	0
	49-60	2.0-15	---	7.4-8.4	1-10
154E:					
Cushing----------	0-5	5.0-25	---	4.5-7.8	0
	5-15	1.0-15	---	4.5-7.8	0
	15-33	2.0-20	---	4.5-7.8	0
	33-57	2.0-20	---	6.6-8.4	0
	57-65	4.0-25	---	6.6-8.4	5-15
	65-73	4.0-25	---	6.6-8.4	5-15
	73-80	2.0-15	---	7.4-8.4	1-10

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
156B:					
Magnor, very stony---	0-4	---	3.0-20	3.5-7.3	0
	4-11	---	1.0-15	3.5-6.0	0
	11-16	---	1.0-15	3.5-6.0	0
	16-21	---	1.0-15	3.5-6.0	0
	21-39	1.0-15	---	4.5-6.5	0
	39-58	1.0-15	---	4.5-6.5	0
	58-60	1.0-10	---	5.1-6.5	0
Magnor----------	0-8	---	3.0-20	3.5-7.3	0
	8-11	---	1.0-15	3.5-6.0	0
	11-16	---	1.0-15	3.5-6.0	0
	16-21	---	1.0-15	3.5-6.0	0
	21-39	1.0-15	---	4.5-6.5	0
	39-58	1.0-15	---	4.5-6.5	0
	58-60	1.0-10	---	5.1-6.5	0
157B:					
Freeon, very stony---	0-4	---	3.0-20	4.5-6.5	0
	4-19	1.0-15	---	4.5-6.5	0
	19-39	1.0-15	---	4.5-6.5	0
	39-53	1.0-10	---	4.5-6.5	0
	53-80	1.0-10	---	4.5-6.5	0
Freeon----------	0-4	---	3.0-20	3.5-7.3	0
	4-19	1.0-15	---	4.5-6.5	0
	19-39	1.0-15	---	4.5-6.5	0
	39-53	1.0-10	---	4.5-6.5	0
	53-80	1.0-10	---	4.5-6.5	0
157C:					
Freeon, very stony---	0-4	---	3.0-20	4.5-6.5	0
	4-19	1.0-15	---	4.5-6.5	0
	19-39	1.0-15	---	4.5-6.5	0
	39-53	1.0-10	---	4.5-6.5	0
	53-80	1.0-10	---	4.5-6.5	0
Freeon----------	0-4	---	3.0-20	3.5-7.3	0
	4-19	1.0-15	---	4.5-6.5	0
	19-39	1.0-15	---	4.5-6.5	0
	39-53	1.0-10	---	4.5-6.5	0
	53-80	1.0-10	---	4.5-6.5	0
160A:					
Oesterle----------	0-7	6.0-20	---	4.5-6.5	0
	7-11	3.0-15	---	4.5-6.5	0
	11-31	1.0-10	---	4.5-6.5	0
	31-60	0.0-6.0	---	4.5-6.5	0
165B:					
Elderon----------	0-7	5.0-20	---	5.1-7.3	---
	7-15	5.0-20	---	5.1-7.3	---
	15-44	1.0-8.0	---	5.1-7.3	---
	44-60	1.0-7.0	---	6.6-7.8	---

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
185B:					
Tradelake----------	0-9	9.0-20	---	5.1-6.5	0
	9-13	4.0-19	---	5.1-6.5	0
	13-21	4.0-19	---	5.1-6.5	0
	21-25	4.0-19	---	5.6-7.3	0
	25-48	35-57	---	5.1-7.3	0
	48-52	35-57	---	5.1-7.3	0
	52-80	1.0-7.0	---	5.6-7.3	0
Taylor----------	0-9	9.0-20	---	5.6-7.3	0
	9-14	8.0-29	---	5.6-7.3	0
	14-25	42-66	---	5.1-7.8	0
	25-32	39-57	---	7.4-8.4	0-5
	32-60	35-57	---	7.4-8.4	1-10
185C:					
Tradelake----------	0-9	9.0-20	---	5.1-6.5	0
	9-13	4.0-19	---	5.1-6.5	0
	13-21	4.0-19	---	5.1-6.5	0
	21-25	4.0-19	---	5.6-7.3	0
	25-48	35-57	---	5.1-7.3	0
	48-52	35-57	---	5.1-7.3	0
	52-80	1.0-7.0	---	5.6-7.3	0
Taylor----------	0-9	9.0-20	---	5.6-7.3	0
	9-14	8.0-29	---	5.6-7.3	0
	14-25	42-66	---	5.1-7.8	0
	25-32	39-57	---	7.4-8.4	0-5
	32-60	35-57	---	7.4-8.4	1-10
185D:					
Tradelake----------	0-9	9.0-20	---	5.1-6.5	0
	9-13	4.0-19	---	5.1-6.5	0
	13-21	4.0-19	---	5.1-6.5	0
	21-25	4.0-19	---	5.6-7.3	0
	25-48	35-57	---	5.1-7.3	0
	48-52	35-57	---	5.1-7.3	0
	52-80	1.0-7.0	---	5.6-7.3	0
Taylor----------	0-9	9.0-20	---	5.6-7.3	0
	9-14	8.0-29	---	5.6-7.3	0
	14-25	42-66	---	5.1-7.8	0
	25-32	39-57	---	7.4-8.4	0-5
	32-60	35-57	---	7.4-8.4	1-10
185E:					
Tradelake----------	0-9	9.0-20	---	5.1-6.5	0
	9-13	4.0-19	---	5.1-6.5	0
	13-21	4.0-19	---	5.1-6.5	0
	21-25	4.0-19	---	5.6-7.3	0
	25-48	35-57	---	5.1-7.3	0
	48-52	35-57	---	5.1-7.3	0
	52-80	1.0-7.0	---	5.6-7.3	0
Taylor----------	0-9	9.0-20	---	5.6-7.3	0
	9-14	8.0-29	---	5.6-7.3	0
	14-25	42-66	---	5.1-7.8	0
	25-32	39-57	---	7.4-8.4	0-5
	32-60	35-57	---	7.4-8.4	1-10

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
189A:					
Siren----------	0-9	11-26	---	4.5-6.5	0
	9-13	3.0-19	---	4.5-6.5	0
	13-20	3.0-25	---	5.1-6.5	0
	20-43	20-42	---	5.1-8.4	0-1
	43-80	20-42	---	6.1-8.4	0-12
193A:					
Minocqua----------	0-4	120-190	---	4.5-7.8	0
	4-15	2.0-20	---	4.5-7.8	0
	15-28	1.0-15	---	4.5-6.5	0
	28-60	0.0-6.0	---	4.5-6.5	0
337A:					
Plover----------	0-10	5.0-10	---	4.5-7.3	0
	10-13	---	2.0-15	4.5-6.5	0
	13-18	---	2.0-15	4.5-6.5	0
	18-32	---	2.0-15	4.5-6.5	0
	32-60	1.0-10	---	5.1-6.5	0
368B:					
Mahtomedi----------	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
368C:					
Mahtomedi----------	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
368D:					
Mahtomedi----------	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
368E:					
Mahtomedi----------	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
380B:					
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
Rosholt----------	0-8	3.0-15	---	4.5-7.3	0
	8-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
380C:					
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
Rosholt----------	0-8	3.0-15	---	4.5-7.3	0
	8-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
380D:					
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
Rosholt----------	0-8	3.0-15	---	4.5-7.3	0
	8-10	1.0-10	---	4.5-6.5	0
	10-14	1.0-10	---	4.5-6.5	0
	14-28	1.0-15	---	4.5-6.5	0
	28-34	1.0-10	---	4.5-6.5	0
	34-60	0.0-6.0	---	4.5-6.5	0
383B:					
Mahtomedi----------	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
383C:					
Mahtomedi----------	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
383D:					
Mahtomedi----------	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
392C:					
Rockmarsh----------	0-1	80-120	---	5.1-7.3	---
	1-8	5.0-22	---	5.1-7.3	0
	8-23	1.0-9.0	---	5.1-7.3	0
	23-46	10-25	---	5.1-7.3	0
	46-80	3.0-14	---	5.6-7.3	0
Dairyland----------	0-1	120-170	---	5.1-7.3	---
	1-7	3.0-10	---	5.1-7.3	0
	7-14	1.0-9.0	---	5.1-6.5	0
	14-36	1.0-8.0	---	5.1-6.5	0
	36-49	1.0-8.0	---	5.1-6.5	0
	49-80	3.0-15	---	5.1-7.8	0
Makwa----------	0-8	150-204	---	5.1-7.3	0
	8-16	12-28	---	5.1-7.3	0
	16-43	4.0-13	---	5.1-7.3	0
	43-65	4.0-22	---	5.1-7.3	0
	65-80	14-36	---	6.1-7.8	0
396B:					
Friendship----------	0-4	---	1.0-4.0	4.5-7.3	0
	4-29	---	1.0-2.0	4.5-6.5	0
	29-60	---	1.0-2.0	4.5-6.5	0
Wurtsmith----------	0-6	---	2.0-14	3.5-5.5	0
	6-33	---	1.0-2.0	3.5-6.0	0
	33-60	---	1.0-2.0	3.5-7.3	0
Grayling----------	0-3	---	2.0-14	3.5-5.5	0
	3-15	---	1.0-4.0	3.5-5.5	0
	15-23	1.0-2.0	---	5.6-7.3	0
	23-60	1.0-2.0	---	5.6-7.3	0
397A:					
Perchlake----------	0-9	1.0-7.0	---	4.5-6.5	0
	9-18	1.0-4.0	---	4.5-6.5	0
	18-42	1.0-4.0	---	4.5-6.5	0
	42-46	---	2.0-15	4.5-6.5	0
	46-60	0.0-3.0	---	4.5-6.5	0
399B:					
Grayling----------	0-3	---	2.0-14	3.5-5.5	0
	3-15	---	1.0-4.0	3.5-5.5	0
	15-23	1.0-2.0	---	5.6-7.3	0
	23-60	1.0-2.0	---	5.6-7.3	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
399C:					
Grayling----------	0-3	---	2.0-14	3.5-5.5	0
	3-15	---	1.0-4.0	3.5-5.5	0
	15-23	1.0-2.0	---	5.6-7.3	0
	23-60	1.0-2.0	---	5.6-7.3	0
399D:					
Grayling----------	0-3	---	2.0-14	3.5-5.5	0
	3-15	---	1.0-4.0	3.5-5.5	0
	15-23	1.0-2.0	---	5.6-7.3	0
	23-60	1.0-2.0	---	5.6-7.3	0
406A:					
Loxley----------	0-13	---	50-100	3.5-4.4	0
	13-60	---	50-120	3.5-4.4	0
407A:					
Seelyeville----------	0-80	140-200	---	4.5-7.3	0
Markey----------	0-32	150-230	---	4.5-7.8	0
	32-60	1.0-3.0	---	5.6-8.4	0
410A:					
Seelyeville----------	0-80	140-200	---	4.5-7.3	0
Cathro----------	0-28	150-230	---	4.5-7.8	0
	28-49	2.0-20	---	5.6-7.3	5-25
	49-60	2.0-20	---	5.6-7.3	5-25
419A:					
Seelyeville----------	0-80	140-200	---	4.5-7.3	0
Cathro----------	0-28	150-230	---	4.5-7.8	0
	28-49	2.0-20	---	5.6-7.3	5-25
	49-60	2.0-20	---	5.6-7.3	5-25
Markey----------	0-32	150-230	---	4.5-7.8	0
	32-60	1.0-3.0	---	5.6-8.4	0
421A:					
Dora----------	0-12	150-230	---	4.5-7.8	0
	12-32	150-230	---	4.5-7.8	0
	32-36	10-50	---	6.1-8.4	0
	36-42	2.0-20	---	6.1-8.4	0
	42-60	2.0-20	---	6.1-8.4	0
Markey----------	0-32	150-230	---	4.5-7.8	---
	32-60	1.0-3.0	---	5.6-8.4	0
Seelyeville----------	0-80	140-200	---	4.5-7.3	0
422A:					
Seelyeville----------	0-80	140-200	---	4.5-7.3	0
Cathro----------	0-28	150-230	---	4.5-7.8	0
	28-49	2.0-20	---	5.6-7.3	5-25
	49-60	2.0-20	---	5.6-7.3	5-25
Rondeau----------	0-44	140-200	---	5.1-7.8	0
	44-60	10-45	---	7.4-8.4	50-90

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
426B:					
Emmert	0-1	2.0-9.0	---	5.1-6.5	0
	1-5	1.0-8.0	---	5.1-7.3	0
	5-24	1.0-7.0	---	5.1-7.3	0
	24-60	1.0-7.0	---	5.1-7.8	0
Mahtomedi	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
Menahga	0-1	---	80-120	4.5-5.5	---
	1-2	---	4.0-10	3.5-6.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
426C:					
Emmert	0-1	2.0-9.0	---	5.1-6.5	0
	1-5	1.0-8.0	---	5.1-7.3	0
	5-24	1.0-7.0	---	5.1-7.3	0
	24-60	1.0-7.0	---	5.1-7.8	0
Mahtomedi	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
Menahga	0-1	---	80-120	4.5-5.5	---
	1-2	---	4.0-10	3.5-6.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
426D:					
Emmert	0-1	2.0-9.0	---	5.1-6.5	0
	1-5	1.0-8.0	---	5.1-7.3	0
	5-24	1.0-7.0	---	5.1-7.3	0
	24-60	1.0-7.0	---	5.1-7.8	0
Mahtomedi	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
Menahga	0-1	---	80-120	4.5-5.5	---
	1-2	---	4.0-10	3.5-6.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
430A:					
Freya	0-11	3.0-9.0	---	5.1-7.3	0
	11-32	1.0-6.0	---	5.1-6.5	0
	32-47	1.0-6.0	---	5.1-7.3	0
	47-66	30-41	---	5.6-8.4	0
	66-72	30-41	---	7.9-8.4	5-15
	72-80	25-41	---	7.9-8.4	5-15

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
439B:					
Graycalm----------	0-3	---	4.0-10	3.5-6.5	0
	3-22	---	2.0-4.0	3.5-7.3	0
	22-35	---	1.0-5.0	3.5-7.3	0
	35-60	---	1.0-5.0	3.5-7.3	0
Menahga----------	0-1	---	80-120	4.5-5.5	---
	1-2	---	4.0-10	3.5-6.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
439C:					
Graycalm----------	0-3	---	4.0-10	3.5-6.5	0
	3-22	---	2.0-4.0	3.5-7.3	0
	22-35	---	1.0-5.0	3.5-7.3	0
	35-60	---	1.0-5.0	3.5-7.3	0
Menahga----------	0-1	---	80-120	4.5-5.5	---
	1-2	---	4.0-10	3.5-6.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
439D:					
Graycalm----------	0-3	---	4.0-10	3.5-6.5	0
	3-22	---	2.0-4.0	3.5-7.3	0
	22-35	---	1.0-5.0	3.5-7.3	0
	35-60	---	1.0-5.0	3.5-7.3	0
Menahga----------	0-1	---	80-120	4.5-5.5	---
	1-2	---	4.0-10	3.5-6.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
442C:					
Haugen----------	0-4	3.0-17	---	4.5-6.5	0
	4-15	1.0-15	---	4.5-6.0	0
	15-23	1.0-15	---	4.5-6.0	0
	23-35	1.0-15	---	4.5-6.0	0
	35-49	1.0-15	---	5.6-6.5	0
	49-79	1.0-15	---	5.6-6.5	0
	79-80	1.0-15	---	5.6-6.5	0
Greenwood----------	0-6	---	80-120	3.5-4.5	0
	6-60	---	150-200	3.5-4.5	0
443D:					
Amery----------	0-3	3.0-15	---	4.5-7.3	0
	3-22	---	1.0-15	4.5-6.0	0
	22-34	1.0-15	---	5.1-6.5	0
	34-41	1.0-15	---	5.1-6.5	0
	41-57	1.0-15	---	5.1-6.5	0
	57-71	1.0-15	---	5.1-6.5	0
	71-80	1.0-15	---	5.6-6.5	0
Greenwood----------	0-6	---	80-120	3.5-4.5	0
	6-60	---	150-200	3.5-4.5	0
459A:					
Loxley----------	0-13	---	50-100	3.5-4.4	0
	13-60	---	50-120	3.5-4.4	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
459A:					
Daisybay----------	0-7	---	140-200	3.5-4.4	0
	7-30	---	140-200	3.5-5.5	0
	30-35	---	140-200	4.6-6.0	0
	35-80	16-28	---	5.6-7.8	0-5
Dawson----------	0-8	---	80-120	3.5-4.4	0
	8-38	---	150-230	3.5-4.4	0
	38-40	10-25	---	3.5-4.4	0
	40-60	1.0-2.0	---	3.5-6.5	0
461A:					
Bowstring----------	0-38	140-180	---	5.6-8.4	0
	38-47	1.0-3.0	---	5.6-8.4	0
	47-80	140-180	---	5.6-8.4	0
465A:					
Newson----------	0-3	---	60-155	3.5-6.0	0
	3-8	---	1.0-7.0	3.5-6.0	0
	8-16	---	1.0-7.0	3.5-6.0	0
	16-22	---	1.0-7.0	3.5-6.0	0
	22-60	0.0-4.0	---	4.5-6.5	0
Meehan----------	0-4	---	2.0-15	3.5-7.3	0
	4-29	---	1.0-8.0	3.5-6.5	0
	29-60	---	0.0-4.0	3.5-7.3	0
469E:					
Bigisland----------	0-3	3.0-9.0	---	5.6-7.3	0
	3-13	2.0-7.0	---	5.6-7.3	0
	13-25	2.0-7.0	---	5.6-7.3	0
	25-47	2.0-7.0	---	5.6-7.3	0
	47-56	2.0-7.0	---	5.6-7.3	0
	56-80	3.0-19	---	6.1-7.3	0
Milaca----------	0-4	---	5.0-18	5.1-6.5	0
	4-13	3.0-11	---	5.1-6.5	0
	13-17	3.0-11	---	5.1-6.5	0
	17-43	4.0-11	---	5.1-6.5	0
	43-80	2.0-10	---	5.6-6.5	0-5
471B:					
Dairyland----------	0-1	120-170	---	5.1-7.3	---
	1-7	3.0-10	---	5.1-7.3	0
	7-14	1.0-9.0	---	5.1-6.5	0
	14-36	1.0-8.0	---	5.1-6.5	0
	36-49	1.0-8.0	---	5.1-6.5	0
	49-80	3.0-15	---	5.1-7.8	0
Emmert----------	0-1	2.0-11	---	5.1-6.5	0
	1-5	1.0-8.0	---	5.1-7.3	0
	5-24	1.0-7.0	---	5.1-7.3	0
	24-60	1.0-7.0	---	5.1-7.8	0
471C:					
Dairyland----------	0-1	120-170	---	5.1-7.3	---
	1-7	3.0-10	---	5.1-7.3	0
	7-14	1.0-9.0	---	5.1-6.5	0
	14-36	1.0-8.0	---	5.1-6.5	0
	36-49	1.0-8.0	---	5.1-6.5	0
	49-80	3.0-15	---	5.1-7.8	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
471C:					
Emmert----------	0-1	2.0-9.0	---	5.1-6.5	0
	1-5	1.0-8.0	---	5.1-7.3	0
	5-24	1.0-7.0	---	5.1-7.3	0
	24-60	1.0-7.0	---	5.1-7.8	0
472A:					
Rockmarsh----------	0-1	80-120	---	5.1-7.3	---
	1-8	5.0-22	---	5.1-7.3	0
	8-23	1.0-9.0	---	5.1-7.3	0
	23-46	10-25	---	5.1-7.3	0
	46-80	3.0-14	---	5.6-7.3	0
Clemens----------	0-2	60-160	---	5.1-7.3	---
	2-7	6.0-15	---	5.1-7.3	0
	7-10	2.0-15	---	5.1-7.3	---
	10-13	2.0-15	---	5.1-7.3	---
	13-32	2.0-11	---	5.1-7.3	0
	32-46	2.0-11	---	5.1-7.3	0
	46-80	1.0-6.0	---	6.1-7.3	0
473A:					
Dairyland----------	0-1	120-170	---	5.1-7.3	---
	1-7	3.0-10	---	5.1-7.3	0
	7-14	1.0-9.0	---	5.1-6.5	0
	14-36	1.0-8.0	---	5.1-6.5	0
	36-49	1.0-8.0	---	5.1-6.5	0
	49-80	3.0-15	---	5.1-7.8	0
Skog----------	0-1	60-160	---	5.1-7.3	0
	1-6	3.0-13	---	5.1-7.3	0
	6-11	2.0-11	---	5.1-7.3	0
	11-27	1.0-7.0	---	5.1-7.3	0
	27-38	1.0-7.0	---	5.1-7.3	0
	38-80	1.0-7.0	---	5.6-6.5	0
484A:					
Greenwood----------	0-6	---	80-120	3.5-4.5	0
	6-60	---	150-200	3.5-4.5	0
Beseman----------	0-36	---	50-150	3.5-4.4	0
	36-60	3.0-15	---	3.5-7.3	0
485C:					
Lupton----------	0-65	160-190	---	4.5-7.8	0
Tawas----------	0-31	160-190	---	4.5-7.8	0
	31-60	1.0-7.0	---	5.6-8.4	0
495B:					
Karlsborg----------	0-9	2.0-10	---	4.5-6.5	0
	9-28	2.0-10	---	4.5-6.5	0
	28-48	12-65	---	4.5-6.5	0
	48-80	1.0-5.0	---	4.5-6.5	0
Grettum----------	0-3	---	2.0-15	3.5-7.3	0
	3-32	---	1.0-10	3.5-7.3	0
	32-75	---	1.0-10	5.1-7.3	0
	75-80	1.0-9.0	---	5.1-7.3	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
495B:					
Perida	0-9	2.0-10	---	3.5-7.3	0
	9-43	2.0-10	---	3.5-7.3	0
	43-45	2.0-10	---	3.5-7.3	0
	45-60	12-65	---	3.5-7.8	0
	60-74	12-65	---	3.5-7.8	0
	74-80	1.0-9.0	---	4.5-7.3	0
495C:					
Karlsborg	0-9	2.0-10	---	4.5-6.5	0
	9-28	2.0-10	---	4.5-6.5	0
	28-48	12-65	---	4.5-6.5	0
	48-80	1.0-5.0	---	4.5-6.5	0
Grettum	0-3	---	2.0-15	3.5-7.3	0
	3-32	---	1.0-10	3.5-7.3	0
	32-75	---	1.0-10	5.1-7.3	0
	75-80	1.0-9.0	---	5.1-7.3	0
Perida	0-9	2.0-10	---	3.5-7.3	0
	9-43	2.0-10	---	3.5-7.3	0
	43-45	2.0-10	---	3.5-7.3	0
	45-60	12-65	---	3.5-7.8	0
	60-74	12-65	---	3.5-7.8	0
	74-80	1.0-9.0	---	4.5-7.3	0
495D:					
Karlsborg	0-9	2.0-10	---	4.5-6.5	0
	9-28	2.0-10	---	4.5-6.5	0
	28-48	12-65	---	4.5-6.5	0
	48-80	1.0-5.0	---	4.5-6.5	0
Grettum	0-3	---	2.0-15	3.5-7.3	0
	3-32	---	1.0-10	3.5-7.3	0
	32-75	---	1.0-10	5.1-7.3	0
	75-80	1.0-9.0	---	5.1-7.3	0
Perida	0-9	2.0-10	---	3.5-7.3	0
	9-43	2.0-10	---	3.5-7.3	0
	43-45	2.0-10	---	3.5-7.3	0
	45-60	12-65	---	3.5-7.8	0
	60-74	12-65	---	3.5-7.8	0
	74-80	1.0-9.0	---	4.5-7.3	0
496B:					
Karlsborg	0-9	2.0-10	---	4.5-6.5	0
	9-28	2.0-10	---	4.5-6.5	0
	28-48	12-65	---	4.5-6.5	0
	48-80	1.0-5.0	---	4.5-6.5	0
496C:					
Karlsborg	0-9	2.0-10	---	4.5-6.5	0
	9-28	2.0-10	---	4.5-6.5	0
	28-48	12-65	---	4.5-6.5	0
	48-80	1.0-5.0	---	4.5-6.5	0
496D:					
Karlsborg	0-9	2.0-10	---	4.5-6.5	0
	9-28	2.0-10	---	4.5-6.5	0
	28-48	12-65	---	4.5-6.5	0
	48-80	1.0-5.0	---	4.5-6.5	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
497A:					
Meenon----------	0-9	2.0-10	---	4.5-7.3	0
	9-28	1.0-10	---	4.5-7.3	0
	28-41	10-70	---	3.5-7.8	0
	41-80	0.0-7.0	---	4.5-6.5	0
521A:					
Dody----------	0-3	40-100	---	4.5-7.3	0
	3-9	6.0-50	---	4.5-7.3	0
	9-20	1.0-15	---	4.5-7.3	0
	20-23	1.0-15	---	4.5-7.3	0
	23-47	10-65	---	4.5-6.5	0
	47-58	1.0-15	---	4.5-6.5	0
	58-80	1.0-15	---	4.5-6.5	0
523A:					
Nokasippi----------	0-6	150-230	---	4.5-6.5	0
	6-15	1.0-7.0	---	4.5-6.5	0
	15-22	1.0-7.0	---	4.5-6.5	0
	22-31	1.0-11	---	5.1-7.3	0
	31-45	2.0-10	---	5.1-7.3	0
	45-60	2.0-10	---	5.1-7.3	0
529B:					
Perida----------	0-9	2.0-10	---	4.5-6.5	0
	9-43	2.0-10	---	3.5-7.3	0
	43-45	2.0-10	---	3.5-7.3	0
	45-60	12-65	---	3.5-7.8	0
	60-74	12-65	---	3.5-7.8	0
	74-80	1.0-9.0	---	4.5-7.3	0
531A:					
Stengel----------	0-4	3.0-10	---	4.5-7.3	0
	4-20	1.0-10	---	4.5-7.3	0
	20-46	1.0-10	---	4.5-7.3	0
	46-50	1.0-10	---	4.5-7.3	0
	50-76	10-70	---	3.5-7.8	0
	76-80	0.0-7.0	---	4.5-7.3	0
542B:					
Haugen, very stony---	0-4	3.0-17	---	4.5-6.5	0
	4-15	1.0-15	---	4.5-6.0	0
	15-23	1.0-15	---	4.5-6.0	0
	23-35	1.0-15	---	4.5-6.0	0
	35-49	1.0-15	---	5.6-6.5	0
	49-79	1.0-15	---	5.6-6.5	0
	79-80	1.0-15	---	5.6-6.5	0
Haugen----------	0-7	3.0-17	---	4.5-6.5	0
	7-15	1.0-15	---	4.5-6.0	0
	15-23	1.0-15	---	4.5-6.0	0
	23-35	1.0-15	---	4.5-6.0	0
	35-49	1.0-15	---	5.6-6.5	0
	49-79	1.0-15	---	5.6-6.5	0
	79-80	1.0-15	---	5.6-6.5	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
542C:					
Haugen, very stony---	0-4	3.0-17	---	4.5-6.5	0
	4-15	1.0-15	---	4.5-6.0	0
	15-23	1.0-15	---	4.5-6.0	0
	23-35	1.0-15	---	4.5-6.0	0
	35-49	1.0-15	---	5.6-6.5	0
	49-79	1.0-15	---	5.6-6.5	0
	79-80	1.0-15	---	5.6-6.5	0
Haugen----------	0-7	3.0-17	---	4.5-6.5	0
	7-15	1.0-15	---	4.5-6.0	0
	15-23	1.0-15	---	4.5-6.0	0
	23-35	1.0-15	---	4.5-6.0	0
	35-49	1.0-15	---	5.6-6.5	0
	49-79	1.0-15	---	5.6-6.5	0
	79-80	1.0-15	---	5.6-6.5	0
544F:					
Menahga----------	0-1	---	80-120	4.5-5.5	---
	1-2	1.0-8.0	---	4.5-5.5	0
	2-25	---	2.0-4.0	4.5-5.5	0
	25-80	0.0-2.0	---	5.1-7.3	0
Mahtomedi----------	0-5	2.0-11	---	5.1-6.5	0
	5-8	0.0-6.0	---	5.1-6.5	0
	8-15	0.0-6.0	---	5.1-6.5	0
	15-30	0.0-6.0	---	5.1-6.5	0
	30-60	0.0-6.0	---	5.1-7.8	0
553B:					
Branstad----------	0-9	7.0-16	---	5.1-7.8	0
	9-14	6.0-17	---	5.1-7.8	0
	14-20	7.0-19	---	5.1-7.8	0
	20-45	7.0-19	---	5.1-7.8	0
	45-55	7.0-19	---	5.1-7.8	0
	55-68	7.0-19	---	6.6-8.4	0
	68-80	7.0-19	---	7.4-8.4	1-10
553C:					
Branstad----------	0-9	7.0-16	---	5.1-7.8	0
	9-14	6.0-17	---	5.1-7.8	0
	14-20	7.0-19	---	5.1-7.8	0
	20-45	7.0-19	---	5.1-7.8	0
	45-55	7.0-19	---	5.1-7.8	0
	55-68	7.0-19	---	6.6-8.4	0
	68-80	7.0-19	---	7.4-8.4	1-10
553D:					
Branstad----------	0-9	7.0-16	---	5.1-7.8	0
	9-14	6.0-17	---	5.1-7.8	0
	14-20	7.0-19	---	5.1-7.8	0
	20-45	7.0-19	---	5.1-7.8	0
	45-55	7.0-19	---	5.1-7.8	0
	55-68	7.0-19	---	6.6-8.4	0
	68-80	7.0-19	---	7.4-8.4	1-10
555A:					
Fordum----------	0-6	10-45	---	4.5-8.4	0
	6-18	3.0-20	---	4.5-8.4	0
	18-30	3.0-20	---	4.5-8.4	0
	30-60	2.0-6.0	---	5.6-8.4	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
557B:					
Shawano----------	0-2	2.0-4.0	---	4.5-7.3	---
	2-4	1.0-3.0	---	4.5-6.5	---
	4-26	1.0-3.0	---	4.5-6.5	---
	26-60	1.0-3.0	---	5.6-7.8	---
557C:					
Shawano----------	0-2	2.0-4.0	---	4.5-7.3	---
	2-4	1.0-3.0	---	4.5-6.5	---
	4-26	1.0-3.0	---	4.5-6.5	---
	26-60	1.0-3.0	---	5.6-7.8	---
557D:					
Shawano----------	0-2	2.0-4.0	---	4.5-7.3	---
	2-4	1.0-3.0	---	4.5-6.5	---
	4-26	1.0-3.0	---	4.5-6.5	---
	26-60	1.0-3.0	---	5.6-7.8	---
586A:					
Chelmo----------	0-9	5.0-10	---	5.1-7.3	0
	9-24	10-65	---	4.5-6.5	0
	24-34	1.0-15	---	4.5-6.5	0
	34-80	1.0-15	---	4.5-6.5	0
600A:					
Haplosaprists.					
Psammaquents.					
615B:					
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
615C:					
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
615D:					
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
620C:					
Lundeen----------	0-3	3.0-19	---	4.5-5.5	0
	3-16	3.0-17	---	4.5-5.5	0
	16-33	2.0-15	---	4.5-5.5	0
	33-80	---	---	---	---
Haustrup----------	0-4	3.0-19	---	3.5-6.0	0
	4-16	3.0-17	---	3.5-6.0	0
	16-80	---	---	---	---
Rock outcrop.					

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
621A:					
Bjorkland----------	0-2	130-180	---	4.5-7.3	0
	2-8	60-160	---	4.5-7.3	0
	8-14	1.0-9.0	---	4.5-6.0	0
	14-25	1.0-9.0	---	4.5-6.0	0
	25-34	1.0-9.0	---	5.1-6.5	0
	34-38	25-41	---	5.1-9.0	0
	38-80	25-41	---	7.9-9.0	5-15
623A:					
Capitola----------	0-5	100-155	---	4.5-7.3	0
	5-7	8.0-35	---	4.5-7.3	0
	7-22	3.0-15	---	4.5-7.3	0
	22-33	2.0-15	---	4.5-7.3	0
	33-60	1.0-10	---	5.1-7.8	0
624A:					
Ossmer----------	0-4	6.0-20	---	4.5-7.3	0
	4-6	1.0-15	---	4.5-6.5	0
	6-11	1.0-15	---	4.5-6.5	0
	11-26	1.0-15	---	4.5-6.5	0
	26-34	1.0-15	---	4.5-6.5	0
	34-38	1.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
631A:					
Giese----------	0-1	100-155	---	4.5-6.0	0
	1-6	8.0-35	---	4.5-6.0	0
	6-11	3.0-15	---	4.5-6.0	0
	11-24	3.0-15	---	5.1-6.5	0
	24-30	3.0-15	---	5.1-6.5	0
	30-36	2.0-15	---	5.1-6.5	0
	36-70	2.0-15	---	5.6-7.3	0
	70-80	1.0-10	---	5.6-7.3	0
632A:					
Aftad----------	0-10	3.0-10	---	4.5-7.3	0
	10-29	2.0-10	---	4.5-6.5	0
	29-36	2.0-15	---	4.5-6.5	0
	36-41	2.0-15	---	4.5-6.5	0
	41-60	1.0-10	---	5.1-6.5	0
632B:					
Aftad----------	0-10	3.0-10	---	4.5-7.3	0
	10-29	2.0-10	---	4.5-6.5	0
	29-36	2.0-15	---	4.5-6.5	0
	36-41	2.0-15	---	4.5-6.5	0
	41-60	1.0-10	---	5.1-6.5	0
632C:					
Aftad----------	0-10	3.0-10	---	4.5-7.3	0
	10-29	2.0-10	---	4.5-6.5	0
	29-36	2.0-15	---	4.5-6.5	0
	36-41	2.0-15	---	4.5-6.5	0
	41-60	1.0-10	---	5.1-6.5	0
634C:					
Drylanding----------	0-4	6.0-22	---	5.6-7.3	0
	4-12	4.0-19	---	5.6-7.3	0
	12-80	---	---	---	---

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
634C:					
Beartree----------	0-1	---	---	5.6-7.3	---
	1-4	---	---	5.6-7.3	---
	4-16	---	---	5.6-7.3	---
	16-80	---	---	---	---
Rock outcrop.					
635C:					
Drylanding----------	0-4	6.0-22	---	5.6-7.3	0
	4-12	4.0-19	---	5.6-7.3	0
	12-80	---	---	---	---
Beartree----------	0-1	---	---	5.6-7.3	---
	1-4	---	---	5.6-7.3	---
	4-16	---	---	5.6-7.3	---
	16-80	---	---	---	---
Rock outcrop.					
648B:					
Sconsin----------	0-4	8.3-13	---	4.5-7.3	0
	4-5	4.6-12	---	4.5-6.5	0
	5-10	4.6-12	---	4.5-6.5	0
	10-18	4.6-12	---	4.5-6.5	0
	18-27	4.6-12	---	4.5-6.5	0
	27-34	5.5-14	---	4.5-6.5	0
	34-38	4.8-12	---	4.5-6.5	0
	38-60	1.0-5.5	---	4.5-6.5	0
669D:					
Fremstadt, stony-----	0-5	3.0-12	---	4.5-7.3	0
	5-33	2.0-10	---	4.5-6.5	0
	33-37	1.0-10	---	4.5-6.5	0
	37-45	1.0-10	---	4.5-6.5	0
	45-70	1.0-10	---	5.6-6.5	0
	70-80	1.0-10	---	5.6-6.5	0
Pomroy----------	0-3	2.0-10	---	5.1-6.5	0
	3-30	1.0-9.0	---	5.1-6.5	0
	30-45	4.0-13	---	5.1-6.5	0
	45-80	4.0-13	---	5.1-6.5	0
671B:					
Spoonerhill, stony---	0-3	2.0-15	---	4.5-7.3	0
	3-12	0.0-15	---	4.5-6.5	0
	12-16	0.0-15	---	4.5-6.5	0
	16-34	0.0-15	---	5.1-6.5	0
	34-46	0.0-15	---	5.6-6.5	0
	46-80	0.0-15	---	5.6-6.5	0
Spoonerhill----------	0-3	2.0-15	---	4.5-7.3	0
	3-12	0.0-15	---	4.5-6.5	0
	12-16	0.0-15	---	4.5-6.5	0
	16-34	0.0-15	---	5.1-6.5	0
	34-46	0.0-15	---	5.6-6.5	0
	46-80	0.0-15	---	5.6-6.5	0
706A:					
Winterfield----------	0-7	2.0-15	---	5.6-7.8	0
	7-60	1.0-5.0	---	5.6-8.4	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
706A:					
Totagatic	0-4	3.0-10	---	5.1-6.5	0
	4-8	1.0-3.0	---	4.5-6.5	0
	8-17	1.0-3.0	---	4.5-6.5	0
	17-28	1.0-3.0	---	4.5-6.5	0
	28-46	1.0-3.0	---	4.5-6.5	0
	46-70	1.0-3.0	---	4.5-6.5	0
	70-80	1.0-3.0	---	4.5-6.5	0
715A:					
Mora	0-4	---	5.0-18	5.1-6.5	0
	4-9	3.0-11	---	5.1-6.5	0
	9-14	3.0-11	---	5.1-6.5	0
	14-36	4.0-11	---	5.1-6.5	0
	36-46	2.0-10	---	5.6-6.5	0
	46-80	2.0-10	---	5.6-6.5	0-5
717B:					
Milaca	0-4	---	5.0-18	5.1-6.5	0
	4-13	3.0-11	---	5.1-6.5	0
	13-17	3.0-11	---	5.1-6.5	0
	17-43	4.0-11	---	5.1-6.5	0
	43-80	2.0-10	---	5.6-6.5	0-5
717C:					
Milaca	0-4	---	5.0-18	5.1-6.5	0
	4-13	3.0-11	---	5.1-6.5	0
	13-17	3.0-11	---	5.1-6.5	0
	17-43	4.0-11	---	5.1-6.5	0
	43-80	2.0-10	---	5.6-6.5	0-5
720F:					
Haustrup	0-4	3.0-19	---	3.5-6.0	0
	4-16	3.0-17	---	3.5-6.0	0
	16-80	---	---	---	---
Lundeen	0-3	3.0-19	---	4.5-5.5	0
	3-16	3.0-17	---	4.5-5.5	0
	16-33	2.0-15	---	4.5-5.5	0
	33-80	---	---	---	---
Rock outcrop.					
726B:					
Sissabagama	0-10	---	2.0-15	4.5-7.3	0
	10-31	---	1.0-10	4.5-6.5	0
	31-45	2.0-4.0	---	4.5-6.5	0
	45-80	2.0-4.0	---	5.1-7.3	0
742B:					
Milaca	0-4	---	5.0-18	5.1-6.5	0
	4-13	3.0-11	---	5.1-6.5	0
	13-17	3.0-11	---	5.1-6.5	0
	17-43	4.0-11	---	5.1-6.5	0
	43-80	2.0-10	---	5.6-6.5	0-5

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
742C:					
Milaca	0-4	---	5.0-18	5.1-6.5	0
	4-13	3.0-11	---	5.1-6.5	0
	13-17	3.0-11	---	5.1-6.5	0
	17-43	4.0-11	---	5.1-6.5	0
	43-80	2.0-10	---	5.6-6.5	0-5
742D:					
Milaca	0-4	---	5.0-18	5.1-6.5	0
	4-13	3.0-11	---	5.1-6.5	0
	13-17	3.0-11	---	5.1-6.5	0
	17-43	4.0-11	---	5.1-6.5	0
	43-80	2.0-10	---	5.6-6.5	0-5
755A:					
Moppet	0-4	---	6.0-20	3.6-6.0	0
	4-10	---	3.0-15	3.6-6.0	0
	10-39	---	3.0-15	3.6-6.0	0
	39-60	---	1.0-10	3.6-6.5	0
Fordum	0-6	10-45	---	4.5-8.4	0
	6-18	3.0-20	---	4.5-8.4	0
	18-30	3.0-20	---	4.5-8.4	0
	30-60	2.0-6.0	---	5.6-8.4	0
771A:					
Lenroot	0-4	2.0-11	---	5.1-6.5	0
	4-8	0.0-6.0	---	5.1-6.5	0
	8-14	0.0-6.0	---	5.1-6.5	0
	14-21	0.0-6.0	---	5.1-6.5	0
	21-80	0.0-6.0	---	5.1-7.3	0
812B:					
Mora	0-4	---	5.0-18	5.1-6.5	0
	4-9	3.0-11	---	5.1-6.5	0
	9-14	3.0-11	---	5.1-6.5	0
	14-36	4.0-11	---	5.1-6.5	0
	36-46	2.0-10	---	5.6-6.5	0
	46-80	2.0-10	---	5.6-6.5	0-5
825A:					
Meehan	0-4	---	2.0-15	3.5-7.3	0
	4-29	---	1.0-8.0	3.5-6.5	0
	29-60	---	0.0-4.0	3.5-7.3	0
896A:					
Wurtsmith	0-6	---	2.0-15	3.5-7.3	0
	6-33	---	1.0-2.0	3.5-6.0	0
	92-60	---	1.0-2.0	3.5-7.3	0
980A:					
Soderbeck	0-4	9.0-20	---	5.6-7.3	0
	4-18	5.0-9.0	---	5.6-7.3	0
	18-28	2.0-7.0	---	5.6-7.3	0
	28-42	1.0-3.0	---	5.6-7.3	0
	42-55	---	---	---	---
	55-80	---	---	---	---

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
1070C:					
Fremstadt----------	0-5	3.0-15	---	4.5-7.3	0
	5-33	2.0-10	---	4.5-6.5	0
	33-37	1.0-10	---	4.5-6.5	0
	37-45	1.0-10	---	4.5-6.5	0
	45-70	1.0-10	---	5.6-6.5	0
	70-80	1.0-10	---	5.6-6.5	0
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
1070D:					
Fremstadt----------	0-5	3.0-15	---	4.5-7.3	0
	5-33	2.0-10	---	4.5-6.5	0
	33-37	1.0-10	---	4.5-6.5	0
	37-45	1.0-10	---	4.5-6.5	0
	45-70	1.0-10	---	5.6-6.5	0
	70-80	1.0-10	---	5.6-6.5	0
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
1080B:					
Spoonerhill----------	0-3	2.0-15	---	4.5-7.3	0
	3-12	0.0-15	---	4.5-6.5	0
	12-16	0.0-15	---	4.5-6.5	0
	16-34	0.0-15	---	5.1-6.5	0
	34-46	0.0-15	---	5.6-6.5	0
	46-80	0.0-15	---	5.6-6.5	0
Spoonerhill, stony---	0-3	2.0-15	---	4.5-7.3	0
	3-12	0.0-15	---	4.5-6.5	0
	12-16	0.0-15	---	4.5-6.5	0
	16-34	0.0-15	---	5.1-6.5	0
	34-46	0.0-15	---	5.6-6.5	0
	46-80	0.0-15	---	5.6-6.5	0
Cress----------	0-3	2.0-20	---	4.5-7.3	0
	3-15	1.0-15	---	4.5-6.0	0
	15-31	---	0.0-7.0	4.5-6.0	0
	31-36	---	0.0-7.0	4.5-6.0	0
	36-60	0.0-6.0	---	4.5-6.5	0
2002. Udorthents, earthen dams					
2015. Pits					
2050. Landfill					

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
3011A:					
Barronett----------	0-9	7.0-30	---	4.5-7.3	0
	9-16	1.0-15	---	4.5-6.5	0
	16-34	4.0-20	---	4.5-6.5	0
	34-60	2.0-15	2.0-25	5.1-7.3	0
3082E:					
Braham----------	0-8	2.0-13	---	5.1-6.5	0
	8-28	2.0-11	---	5.1-6.5	0
	28-42	14-22	---	5.1-6.5	0
	42-48	8.0-18	---	5.1-7.3	0
	48-80	8.0-18	---	7.4-8.4	3-5
Shawano----------	0-2	2.0-4.0	---	4.5-7.3	---
	2-4	1.0-3.0	---	4.5-6.5	---
	4-26	1.0-3.0	---	4.5-6.5	---
	26-60	1.0-3.0	---	5.6-7.8	---
3114A:					
Saprists----------	0-80	140-200	---	4.5-7.3	0
Aquents----------	0-3	---	60-155	3.5-6.0	0
	3-8	---	1.0-7.0	3.5-6.0	0
	8-16	---	1.0-7.0	3.5-6.0	0
	16-22	---	1.0-7.0	3.5-6.0	0
	22-60	0.0-4.0	---	4.5-6.5	0
Aquepts----------	0-4	120-190	---	4.5-7.8	0
	4-15	2.0-20	---	4.5-7.8	0
	15-28	1.0-15	---	4.5-6.5	0
	28-60	0.0-6.0	---	4.5-6.5	0
3125A:					
Meehan----------	0-5	---	2.0-15	3.5-7.3	0
	5-8	---	1.0-8.0	3.5-6.5	0
	8-28	---	1.0-8.0	3.5-6.5	0
	28-60	---	0.0-4.0	3.5-7.3	0
3126A:					
Wurtsmith----------	0-9	---	2.0-14	3.5-5.5	0
	9-37	---	1.0-2.0	3.5-6.0	0
	37-60	---	1.0-2.0	3.5-7.3	0
3312B:					
Glendenning, very stony----------	0-5	3.0-17	---	5.1-7.3	0
	5-15	1.0-15	---	5.1-6.0	0
	15-20	1.0-15	---	5.1-6.5	0
	20-26	1.0-15	---	5.1-6.5	0
	26-40	1.0-15	---	5.1-6.5	0
	40-65	1.0-15	---	5.1-6.5	0
	65-80	1.0-15	---	6.1-7.3	0
Glendenning----------	0-7	3.0-17	---	5.1-7.3	0
	7-15	1.0-15	---	5.1-6.0	0
	15-20	1.0-15	---	5.1-6.5	0
	20-26	1.0-15	---	5.1-6.5	0
	26-40	1.0-15	---	5.1-6.5	0
	40-65	1.0-15	---	5.1-6.5	0
	65-80	1.0-15	---	6.1-7.3	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
3336A:					
Fenander----------	0-9	5.0-10	---	5.1-7.3	0
	9-15	2.0-15	---	5.1-7.3	0
	15-27	2.0-15	---	5.1-7.3	0
	27-33	2.0-15	---	5.1-7.3	0
	33-80	2.0-20	---	5.1-7.3	0
3403A:					
Loxley----------	0-13	---	50-100	3.5-4.4	0
	13-60	---	50-120	3.5-4.4	0
Beseman----------	0-36	---	50-150	3.5-4.4	0
	36-60	3.0-15	---	3.5-7.3	0
Dawson----------	0-8	---	80-120	3.5-4.4	0
	8-38	---	150-230	3.5-4.4	0
	38-40	10-25	---	3.5-4.4	0
	40-60	1.0-2.0	---	3.5-6.5	0
3429B:					
Lara----------	0-10	3.0-9.0	---	5.1-7.3	0
	10-35	1.0-6.0	---	5.1-7.3	0
	35-42	1.0-5.0	---	5.1-7.3	0
	42-55	25-40	---	5.1-7.3	0
	55-75	25-40	---	5.1-7.3	0
	75-80	25-40	---	5.1-7.3	0
3429C:					
Lara----------	0-10	3.0-9.0	---	5.1-7.3	0
	10-35	1.0-6.0	---	5.1-7.3	0
	35-42	1.0-5.0	---	5.1-7.3	0
	42-55	25-40	---	5.1-7.3	0
	55-75	25-40	---	5.1-7.3	0
	75-80	25-40	---	5.1-7.3	0
3446A:					
Newson----------	0-3	---	60-155	3.5-6.0	0
	3-8	---	1.0-7.0	3.5-6.0	0
	8-16	---	1.0-7.0	3.5-6.0	0
	16-22	---	1.0-7.0	3.5-6.0	0
	22-60	0.0-4.0	---	4.5-6.5	0
3448B:					
Grettum----------	0-3	---	2.0-15	3.5-7.3	0
	3-32	---	1.0-10	3.5-7.3	0
	32-75	---	1.0-10	5.1-7.3	0
	75-80	1.0-9.0	---	5.1-7.3	0
3448C:					
Grettum----------	0-3	---	2.0-15	3.5-7.3	0
	3-32	---	1.0-10	3.5-7.3	0
	32-75	---	1.0-10	5.1-7.3	0
	75-80	1.0-9.0	---	5.1-7.3	0
3510B:					
Pomroy----------	0-3	2.0-10	---	5.1-6.5	0
	3-30	1.0-9.0	---	5.1-6.5	0
	30-45	4.0-13	---	5.1-6.5	0
	45-80	4.0-13	---	5.1-6.5	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
3510B:					
Fremstadt----------	0-5	3.0-12	---	4.5-7.3	0
	5-33	2.0-10	---	4.5-6.5	0
	33-37	1.0-10	---	4.5-6.5	0
	37-45	1.0-10	---	4.5-6.5	0
	45-70	1.0-10	---	5.6-6.5	0
	70-80	1.0-10	---	5.6-6.5	0
Fremstadt, stony-----	0-5	3.0-12	---	4.5-7.3	0
	5-33	2.0-10	---	4.5-6.5	0
	33-37	1.0-10	---	4.5-6.5	0
	37-45	1.0-10	---	4.5-6.5	0
	45-70	1.0-10	---	5.6-6.5	0
	70-80	1.0-10	---	5.6-6.5	0
3510C:					
Pomroy----------	0-3	2.0-10	---	5.1-6.5	0
	3-30	1.0-9.0	---	5.1-6.5	0
	30-45	4.0-13	---	5.1-6.5	0
	45-80	4.0-13	---	5.1-6.5	0
Fremstadt----------	0-5	3.0-12	---	4.5-7.3	0
	5-33	2.0-10	---	4.5-6.5	0
	33-37	1.0-10	---	4.5-6.5	0
	37-45	1.0-10	---	4.5-6.5	0
	45-70	1.0-10	---	5.6-6.5	0
	70-80	1.0-10	---	5.6-6.5	0
Fremstadt, stony-----	0-5	3.0-12	---	4.5-7.3	0
	5-33	2.0-10	---	4.5-6.5	0
	33-37	1.0-10	---	4.5-6.5	0
	37-45	1.0-10	---	4.5-6.5	0
	45-70	1.0-10	---	5.6-6.5	0
	70-80	1.0-10	---	5.6-6.5	0
3511A:					
Bushville----------	0-4	1.0-7.0	---	5.1-6.5	0
	4-21	1.0-4.0	---	5.1-6.5	0
	21-24	4.0-11	---	5.1-6.5	0
	24-30	4.0-11	---	5.1-6.5	0
	30-45	3.0-10	---	5.1-7.3	0
	45-60	3.0-10	---	5.6-7.3	0
3516A:					
Slimlake----------	0-6	3.0-15	---	5.1-6.5	0
	6-17	---	3.0-15	5.1-6.5	0
	17-42	0.0-2.0	---	5.1-6.5	0
	42-53	0.0-2.0	---	5.1-6.5	0
	53-80	0.0-2.0	---	5.1-6.5	0
3625A:					
Lino----------	0-7	1.0-10	---	5.1-6.0	0
	7-45	2.0-6.0	---	5.1-6.0	0
	45-60	1.0-3.0	---	5.1-6.5	0
3626A:					
Crex----------	0-1	---	80-120	3.5-6.0	---
	1-7	---	1.0-20	3.5-6.0	0
	7-40	---	0.0-7.0	3.5-6.0	0
	40-71	0.0-4.0	---	5.1-7.3	0
	71-80	0.0-4.0	---	5.1-7.3	0

Table 24.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction	Calcium carbon-ate
	In	meq/100 g	meq/100 g	pH	Pct
3629B:					
Perida----------	0-9	2.0-10	---	3.5-7.3	0
	9-43	2.0-10	---	3.5-7.3	0
	43-45	2.0-10	---	3.5-7.3	0
	45-60	12-65	---	3.5-7.8	0
	60-74	12-65	---	3.5-7.8	0
	74-80	1.0-9.0	---	4.5-7.3	0
3636B:					
Plainbo----------	0-4	3.0-9.0	---	3.5-7.3	---
	4-13	1.0-6.0	---	3.5-6.5	---
	13-32	1.0-6.0	---	3.5-6.5	---
	32-75	---	---	---	---
	75-80	---	---	---	---
3636C:					
Plainbo----------	0-4	3.0-9.0	---	3.5-7.3	---
	4-13	1.0-6.0	---	3.5-6.5	---
	13-32	1.0-6.0	---	3.5-6.5	---
	32-75	---	---	---	---
	75-80	---	---	---	---
M-W. Miscellaneous water					
W. Water					

Table 25.--Soil Moisture Status by Depth

(Depths of layers are in feet. Absence of an entry indicates that the feature is not a concern or that data were not estimated. See text for definitions of terms used in this table)

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
3A:													
Totagatic-------	A/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.0-6.7: Wet
Bowstring-------	A/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.0-6.7: Wet
Ausable---------	A/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
12A:													
Makwa-----------	D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
22A:													
Comstock--------	C	0.0-2.5: Moist 2.5-3.0: Wet 3.0-6.7: Moist ---	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist ---	0.0-2.5: Moist 2.5-5.0: Wet 5.0-6.7: Moist ---	0.0-0.5: Moist 0.5-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet ---	0.0-2.5: Moist 2.5-6.7: Wet ---	0.0-2.5: Moist 2.5-6.7: Wet ---	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-5.0: Moist 5.0-6.7: Wet ---	0.0-2.0: Moist 2.0-2.5: Wet 2.5-5.0: Moist 5.0-6.7: Wet	0.0-1.0: Moist 1.0-2.5: Wet 2.5-5.5: Moist 5.5-6.7: Wet	0.0-2.0: Moist 2.0-3.0: Wet 3.0-6.0: Moist 6.0-6.7: Wet
27A:													
Scott Lake------	B	0.0-4.5: Moist 4.5-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
28B:													
Haugen, very stony----------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: 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 --- --- ---	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist
Haugen----------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: 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 --- --- ---	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist
Rosholt, very stony----------	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
Rosholt---------	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
28C:													
Haugen, very stony----------	B	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: 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 --- --- ---	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist
Haugen----------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: 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 --- --- ---	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist
Rosholt, very stony----------	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
Rosholt---------	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 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
38A:													
Rosholt---------	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
38B:													
Rosholt---------	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
38C:													
Rosholt---------	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
38D:													
Rosholt---------	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
42D:													
Amery----------	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
43B:													
Antigo----------	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
43C:													
Antigo----------	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
63A:													
Crystal Lake----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.0: Moist	0.0-3.0: Moist	0.0-3.5: Moist	0.0-5.5: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.5: Moist	0.0-6.7: Moist
		---	---	---	2.0-5.0: Wet	3.0-6.7: Wet	3.5-6.7: Wet	5.5-6.7: Wet	---	---	---	2.5-3.0: Wet	---
		---	---	---	5.0-6.7: Moist	---	---	---	---	---	---	3.0-6.7: Moist	---
63B:													
Crystal Lake----	B	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.0: Moist	0.0-3.0: Moist	0.0-3.5: Moist	0.0-5.5: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.5: Moist	0.0-6.7: Moist
		---	---	---	2.0-5.0: Wet	3.0-6.7: Wet	3.5-6.7: Wet	5.5-6.7: Wet	---	---	---	2.5-3.0: Wet	---
		---	---	---	5.0-6.7: Moist	---	---	---	---	---	---	3.0-6.7: Moist	---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
63C:													
Crystal Lake----	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-5.0: Wet 5.0-6.7: Moist	0.0-3.5: Moist 3.5-6.7: 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 --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
64A:													
Totagatic-------	A/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.0-6.7: Wet
Winterfield-----	A/D	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	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
69C:													
Keweenaw--------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Sayner----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Vilas----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
69E:													
Keweenaw--------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Sayner----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
69E:													
Vilas----------	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 --- ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
82B:													
Cutaway---------	B	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-6.7: Wet --- ---	0.0-2.0: Moist 2.0-6.7: Wet --- ---	0.0-3.0: Moist 3.0-6.7: Wet --- ---	0.0-1.0: Dry 0.0-5.1: Moist 5.1-6.7: Wet	0.0-1.5: Dry 1.5-6.7: Moist --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---
Branstad--------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: 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	0.0-5.5: Moist 5.5-6.7: Wet
82C:													
Cutaway---------	B	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-6.7: Wet --- ---	0.0-2.0: Moist 2.0-6.7: Wet --- ---	0.0-3.0: Moist 3.0-6.7: Wet --- ---	0.0-1.0: Dry 0.0-5.1: Moist 5.1-6.7: Wet	0.0-1.5: Dry 1.5-6.7: Moist --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---
Branstad--------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: 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	0.0-5.5: Moist 5.5-6.7: Wet
83A:													
Smestad---------	C	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-4.0: Wet 4.0-6.7: Moist	0.0-0.5: Moist 0.5-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet ---	0.0-1.5: Moist 1.5-4.5: Wet 4.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist
85B:													
Taylor----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-2.0: Moist 1.0-2.0: Wet 2.0-6.7: Moist	0.0-2.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
85C:													
Taylor----------	C	0.0-6.7: Moist --- ---:	0.0-6.7: Moist --- ---:	0.0-2.0: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-2.0: Moist 1.0-2.0: Wet 2.0-6.7: Moist	0.0-2.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-6.7: Moist --- ---:	0.0-6.7: Moist --- ---:	0.0-6.7: Moist --- ---:	0.0-6.7: Moist --- ---:	0.0-6.7: Moist --- ---:	0.0-6.7: Moist --- ---:	0.0-6.7: Moist --- ---:
86A:													
Indus----------	C	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-3.5: Wet 3.5-6.7: Moist ---	0.0-3.5: Wet 3.5-6.7: Moist ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: 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	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-3.5: Wet 3.5-6.7: Moist ---	0.0-0.5: Moist 0.5-3.5: Wet 3.5-6.7: Moist
Alango----------	D	0.0-1.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-1.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-1.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-1.0: Moist 1.0-3.0: Wet 3.0-6.7: Moist	0.0-1.0: Moist 1.0-3.0: Wet 3.0-6.7: Moist	0.0-1.5: Moist 1.5-3.0: Wet 3.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-1.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-1.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist
89A:													
Wildwood--------	D	0.0-1.0: Moist 1.0-2.0: Wet 2.0-6.7: Moist	0.0-1.0: Moist 1.0-2.0: Wet 2.0-6.7: Moist	0.0-0.5: Moist 0.5-2.0: Wet 2.0-6.7: Moist	0.0-6.7: Wet --- ---	0.0-6.7: Wet --- ---	0.0-0.5: Moist 0.5-3.5: Wet 3.5-6.7: Moist	0.0-0.5: Moist 0.5-2.0: Wet 2.0-6.7: Moist	0.0-0.5: Moist 0.5-2.0: Wet 2.0-6.7: Moist	0.0-0.5: Moist 0.5-2.0: Wet 2.0-6.7: Moist	0.0-0.5: Moist 0.5-2.0: Wet 2.0-6.7: Moist	0.0-0.5: Moist 0.5-2.0: Wet 2.0-6.7: Moist	0.0-0.5: Moist 0.5-2.0: Wet 2.0-6.7: Moist
96B:													
Karlsborg-------	C	0.0-6.7: Moist --- ---:	0.0-6.7: Moist --- ---:	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
96C:													
Karlsborg-------	C	0.0-6.7: Moist --- ---:	0.0-6.7: Moist --- ---:	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
96D:													
Karlsborg-------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
100B:													
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
100C:													
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
100D:													
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
120B:													
Kost----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
127D:													
Amery----------	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
Rosholt---------	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
127E:													
Amery----------	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
Rosholt---------	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 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
151A:													
Bluffton--------	C/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
152A:													
Alstad----------	C	0.0-2.5: Moist 2.5-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-3.5: Moist 3.5-6.7: 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
154E:													
Cushing---------	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
156B:													
Magnor, very stony----------	C	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-0.5: Moist 0.5-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist
Magnor----------	C	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-0.5: Moist 0.5-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist
157B:													
Freeon, very stony----------	C	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	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	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	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist
Freeon----------	C	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	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	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	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
157C:													
Freeon, very stony----------	C	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	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	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	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist
Freeon----------	C	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	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	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	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist
160A:													
Oesterle--------	C	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
165B:													
Elderon---------	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
185B:													
Tradelake-------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: 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 --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist
Taylor----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-2.0: Moist 1.0-2.0: Wet 2.0-6.7: Moist	0.0-2.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
185C:													
Tradelake-------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: 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 --- --- ---
Taylor----------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-2.0: Moist 1.0-2.0: Wet 2.0-6.7: Moist	0.0-2.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---
185D:													
Tradelake-------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: 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 --- --- ---
Taylor----------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-2.0: Moist 1.0-2.0: Wet 2.0-6.7: Moist	0.0-2.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---
185E:													
Tradelake-------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: 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 --- --- ---
Taylor----------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-2.0: Moist 1.0-2.0: Wet 2.0-6.7: Moist	0.0-2.5: Moist 1.5-2.0: Wet 2.0-6.7: Moist	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
189A:													
Siren----------	D	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-3.0: Moist 3.0-5.0: Wet 5.0-6.7: Moist	0.0-0.5: Moist 0.5-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet ---	0.0-2.5: Moist 2.5-6.7: Wet ---	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist
193A:													
Minocqua--------	B/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
337A:													
Plover----------	C	0.0-2.5: Moist 2.5-3.0: Wet 3.0-6.7: Moist ---	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist ---	0.0-2.5: Moist 2.5-5.0: Wet 5.0-6.7: Moist ---	0.0-0.5: Moist 0.5-6.7: Wet --- ---	0.0-1.0: Moist 1.0-6.7: Wet --- ---	0.0-2.5: Moist 2.5-6.7: Wet --- ---	0.0-2.5: Moist 2.5-6.7: Wet --- ---	0.0-4.0: Moist 4.0-6.7: Wet --- ---	0.0-5.0: Moist 5.0-6.7: Wet --- ---	0.0-2.0: Moist 2.0-2.5: Wet 2.5-5.0: Moist 5.0-6.7: Wet	0.0-1.0: Moist 1.0-2.5: Wet 2.5-5.5: Moist 5.5-6.7: Wet	0.0-2.0: Moist 2.0-3.0: Wet 3.0-6.0: Moist 6.0-6.7: Wet
368B:													
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Cress----------	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
368C:													
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Cress----------	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 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
368D:													
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Cress----------	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
368E:													
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Cress----------	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
380B:													
Cress----------	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
Rosholt---------	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
380C:													
Cress----------	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
Rosholt---------	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
380D:													
Cress----------	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
Rosholt---------	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
383B:													
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
383C:													
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
383D:													
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
392C:													
Rockmarsh-------	D	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-0.5: Moist 0.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Moist 1.0-4.0: Wet 4.0-6.7: Moist	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-2.0: Moist 2.0-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Moist 1.0-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist
Dairyland-------	C	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-3.5: Moist 3.5-4.5: Wet 4.5-6.7: Moist	0.0-2.0: Moist 2.0-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-3.5: Moist 3.5-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-3.0: Moist 3.0-4.5: Wet 4.5-6.7: Moist
Makwa----------	D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
396B:													
Friendship------	A	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.0: Moist 6.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.0: Moist 6.0-6.7: Wet	0.0-6.7: Moist ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Wurtsmith-------	A	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-5.0: Moist 5.0-6.7: Wet ---	0.0-3.5: Moist 3.5-6.7: Wet ---	0.0-2.0: Moist 2.0-6.7: Wet ---	0.0-2.5: Moist 2.5-6.7: Wet ---	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-0.5: Dry 0.5-4.5: Moist 4.5-6.7: Wet	0.0-1.0: Dry 1.0-5.0: Moist 5.0-6.7: 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 ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
396B:													
Grayling--------	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 ---	0.0-1.0: Dry 0.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
397A:													
Perchlake-------	B	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
399B:													
Grayling--------	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 ---	0.0-1.0: Dry 0.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
399C:													
Grayling--------	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 ---	0.0-1.0: Dry 0.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
399D:													
Grayling--------	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 ---	0.0-1.0: Dry 0.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
406A:													
Loxley----------	A/D	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	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
407A:													
Seelyeville-----	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----------	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
410A:													
Seelyeville-----	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 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
410A:													
Cathro----------	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
419A:													
Seelyeville-----	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
Cathro----------	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----------	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
421A:													
Dora----------	A/D	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist	0.0-3.0: Wet 3.0-6.7: Moist
Markey----------	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
Seelyeville-----	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
422A:													
Seelyeville-----	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
Cathro----------	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
Rondeau---------	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
426B:													
Emmert----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
426B:													
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
426C:													
Emmert----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
426D:													
Emmert----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
430A:													
Freya----------	D	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-0.5: Moist 0.5-4.5: Wet 4.5-6.7: Moist	0.0-1.0: Moist 1.0-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	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	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist
439B:													
Graycalm--------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
439C:													
Graycalm--------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
439D:													
Graycalm--------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
442C:													
Haugen----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: 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 --- ---	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist
Greenwood-------	A/D	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	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
443D:													
Amery----------	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
Greenwood-------	A/D	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	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
459A:													
Loxley----------	A/D	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	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
Daisybay--------	A	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
Dawson----------	A/D	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	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	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
461A:													
Bowstring-------	A/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
465A:													
Newson----------	A/D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
465A:													
Meehan----------	B	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
469E:													
Bigisland-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Milaca----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	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	0.0-6.7: Moist --- ---
471B:													
Dairyland-------	C	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-3.5: Moist 3.5-4.5: Wet 4.5-6.7: Moist	0.0-2.0: Moist 2.0-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-3.5: Moist 3.5-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-3.0: Moist 3.0-4.5: Wet 4.5-6.7: Moist
Emmert----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
471C:													
Dairyland-------	C	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-3.5: Moist 3.5-4.5: Wet 4.5-6.7: Moist	0.0-2.0: Moist 2.0-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-3.5: Moist 3.5-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-3.0: Moist 3.0-4.5: Wet 4.5-6.7: Moist
Emmert----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
472A:													
Rockmarsh-------	D	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-0.5: Moist 0.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Moist 1.0-4.0: Wet 4.0-6.7: Moist	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-2.0: Moist 2.0-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Moist 1.0-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist
Clemens---------	D	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	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
473A:													
Dairyland-------	C	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-3.5: Moist 3.5-4.5: Wet 4.5-6.7: Moist	0.0-2.0: Moist 2.0-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-3.5: Moist 3.5-4.5: Wet 4.5-6.7: Moist	0.0-2.5: Moist 2.5-4.5: Wet 4.5-6.7: Moist	0.0-3.0: Moist 3.0-4.5: Wet 4.5-6.7: Moist
Skog----------	C	0.0-4.5: Moist 4.5-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet
484A:													
Greenwood-------	A/D	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	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
Beseman---------	A/D	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	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
485C:													
Lupton----------	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
Tawas-----------	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 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
495B:													
Karlsborg-------	D	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Grettum---------	A	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.0: Moist 6.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.0: Moist 6.0-6.7: Wet	0.0-6.7: Moist ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Perida----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
495C:													
Karlsborg-------	D	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Grettum---------	A	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.0: Moist 6.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.0: Moist 6.0-6.7: Wet	0.0-6.7: Moist ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Perida----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
495D:													
Karlsborg-------	D	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
495D:													
Grettum---------	A	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.0: Moist 6.0-6.7: Wet ---	0.0-4.5: Moist 4.5-6.7: Wet ---	0.0-6.0: Moist 6.0-6.7: Wet ---	0.0-6.7: Moist --- ---	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Perida----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
496B:													
Karlsborg-------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
496C:													
Karlsborg-------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
496D:													
Karlsborg-------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
497A:													
Meenon----------	C	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-4.5: Wet 4.5-6.7: Moist	0.0-0.5: Moist 0.5-4.5: Wet 4.5-6.7: Moist	0.0-0.5: Moist 0.5-4.5: Wet 4.5-6.7: Moist	0.0-1.5: Moist 1.5-4.5: Wet 4.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
521A:													
Dody----------	C/D	0.0-0.5: Moist 0.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-4.0: Wet 4.0-6.7: Moist ---	0.0-4.0: Wet 4.0-6.7: Moist ---	0.0-4.0: Wet 4.0-6.7: Moist ---	0.0-1.0: Moist 1.0-4.0: Wet 4.0-6.7: Moist	0.0-2.0: Moist 2.0-4.0: Wet 4.0-6.7: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-0.5: Moist 0.5-4.0: Wet 4.0-6.7: Moist	0.0-4.0: Wet 4.0-6.7: Moist ---	0.0-4.0: Wet 4.0-6.7: Moist ---
523A:													
Nokasippi-------	B/D	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-3.5: Wet 3.5-6.7: Moist ---	0.0-3.5: Wet 3.5-6.7: Moist ---	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Wet --- ---	0.0-0.5: Moist 0.5-3.5: Wet 3.5-6.7: Moist
529B:													
Perida----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
531A:													
Stengel---------	B/D	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-1.0: Moist 1.0-6.0: Wet 6.0-6.7: Moist	0.0-0.5: Moist 0.5-6.0: Wet 6.0-6.7: Moist	0.0-0.5: Moist 0.5-6.0: Wet 6.0-6.7: Moist	0.0-1.5: Moist 1.5-6.0: Wet 6.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-1.5: Moist 1.5-6.0: Wet 6.0-6.7: Moist	0.0-1.5: Moist 1.5-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist
542B:													
Haugen, very stony----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: 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 --- ---	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist
Haugen----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: 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 --- ---	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
542C:													
Haugen, very stony----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: 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 --- ---	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist
Haugen----------	B	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-2.0: Moist 2.0-6.0: Wet 6.0-6.7: Moist	0.0-3.0: Moist 3.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: 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 --- ---	0.0-4.0: Moist 4.0-6.0: Wet 6.0-6.7: Moist	0.0-4.5: Moist 4.5-6.0: Wet 6.0-6.7: Moist
544F:													
Menahga---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Mahtomedi-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
553B:													
Branstad--------	C	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: 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	0.0-5.5: Moist 5.5-6.7: Wet
553C:													
Branstad--------	C	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: 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	0.0-5.5: Moist 5.5-6.7: Wet
553D:													
Branstad--------	C	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: 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	0.0-5.5: Moist 5.5-6.7: Wet

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
555A:													
Fordum----------	D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
557B:													
Shawano---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
557C:													
Shawano---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
557D:													
Shawano---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
586A:													
Chelmo----------	D	0.0-1.5: Moist 1.5-2.5: Wet 2.5-6.7: Moist	0.0-1.5: Moist 1.5-2.5: Wet 2.5-6.7: Moist	0.0-1.5: Moist 1.5-2.5: Wet 2.5-6.7: Moist	0.0-2.5: Wet 2.5-6.7: Moist ---	0.0-2.5: Wet 2.5-6.7: Moist ---	0.0-1.5: Moist 1.5-2.5: Wet 2.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-1.5: Moist 1.5-2.5: Wet 2.5-6.7: Moist	0.0-1.0: Moist 1.0-2.5: Wet 2.5-6.7: Moist	0.0-2.5: Wet 2.5-6.7: Moist ---	0.0-0.5: Moist 0.5-2.5: Wet 2.5-6.7: Moist
600A:													
Haplosaprists---	D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.0: 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
Psammaquents----	D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.0: 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
615B:													
Cress----------	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
615C:													
Cress----------	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 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
615D:													
Cress----------	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
620C:													
Lundeen---------	D	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist
Haustrup--------	D	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist
Rock outcrop.													
621A:													
Bjorkland-------	D	0.0-3.5: Wet	0.0-3.5: Wet	0.0-4.5: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-4.5: Wet	0.0-3.5: Wet	0.0-3.5: Wet	0.0-3.5: Wet	0.0-3.5: Wet	0.0-3.5: Wet	0.0-3.5: Wet
		3.5-6.7: Moist	3.5-6.7: Moist	4.5-6.7: Moist	---	---	4.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist
623A:													
Capitola--------	B/D	0.0-1.5: Moist	0.0-1.5: Moist	0.0-1.0: Moist	0.0-2.5: Wet	0.0-2.5: Wet	0.0-1.5: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-1.5: Moist	0.0-1.0: Moist	0.0-2.5: Wet	0.0-0.5: Moist
		1.5-2.5: Wet	1.5-2.5: Wet	1.0-2.5: Wet	2.5-6.7: Moist	2.5-6.7: Moist	1.5-2.5: Wet	---	---	1.5-2.5: Wet	1.0-2.5: Wet	2.5-6.7: Moist	0.5-2.5: Wet
		2.5-6.7: Moist	2.5-6.7: Moist	2.5-6.7: Moist	---	---	2.5-6.7: Moist	---	---	2.5-6.7: Moist	2.5-6.7: Moist	---	2.5-6.7: Moist
624A:													
Ossmer----------	C	0.0-3.0: Moist	0.0-4.0: Moist	0.0-2.5: Moist	0.0-0.5: Moist	0.0-1.0: Moist	0.0-2.5: Moist	0.0-3.5: Moist	0.0-4.0: Moist	0.0-3.0: Moist	0.0-2.0: Moist	0.0-2.0: Moist	0.0-2.0: Moist
		3.0-6.7: Wet	4.0-6.7: Wet	2.5-6.7: Wet	0.5-6.7: Wet	1.0-6.7: Wet	2.5-6.7: Wet	3.5-6.7: Wet	4.0-6.7: Wet	3.0-6.7: Wet	2.0-6.7: Wet	2.0-6.7: Wet	2.0-6.7: Wet
631A:													
Giese----------	B/D	0.0-1.5: Moist	0.0-1.5: Moist	0.0-1.0: Moist	0.0-2.5: Wet	0.0-2.5: Wet	0.0-1.5: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-1.5: Moist	0.0-1.0: Moist	0.0-2.5: Wet	0.0-1.5: Moist
		1.5-2.5: Wet	1.5-2.5: Wet	1.0-2.5: Wet	2.5-6.7: Moist	2.5-6.7: Moist	1.5-2.5: Wet	---	---	1.5-2.5: Wet	1.0-2.5: Wet	2.5-6.7: Moist	1.5-2.5: Wet
		2.5-6.7: Moist	2.5-6.7: Moist	2.5-6.7: Moist	---	---	2.5-6.7: Moist	---	---	2.5-6.7: Moist	2.5-6.7: Moist	---	2.5-6.7: Moist

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
632A:													
Aftad----------	B	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-5.0: Wet 5.0-6.7: Moist	0.0-3.0: Moist 3.0-6.7: Wet --- ---	0.0-3.5: Moist 3.5-6.7: 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 --- --- ---	0.0-2.5: Moist 2.5-3.0: Wet 3.0-6.7: Moist	0.0-6.7: Moist --- --- ---
632B:													
Aftad----------	B	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-5.0: Wet 5.0-6.7: Moist	0.0-3.0: Moist 3.0-6.7: Wet --- ---	0.0-3.5: Moist 3.5-6.7: 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 --- --- ---	0.0-2.5: Moist 2.5-3.0: Wet 3.0-6.7: Moist	0.0-6.7: Moist --- --- ---
632C:													
Aftad----------	B	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-5.0: Wet 5.0-6.7: Moist	0.0-3.5: Moist 3.5-6.7: Wet --- ---	0.0-5.0: Moist 5.0-6.7: Wet --- ---	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 --- --- ---
634C:													
Drylanding------	D	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist
Beartree--------	D	0.0-1.5: Moist ---	0.0-1.5: Moist ---	0.0-1.0: Moist 1.0-1.5: Wet	0.0-1.5: Wet ---	0.0-1.5: Wet ---	0.0-1.0: Moist 1.0-1.5: Wet	0.0-1.0: Moist 1.0-1.5: Wet	0.0-1.5: Moist ---	0.0-1.5: Moist ---	0.0-1.5: Wet ---	0.0-1.5: Wet ---	0.0-1.5: Wet ---
Rock outcrop.													
635C:													
Drylanding------	D	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist
Beartree--------	D	0.0-1.5: Moist ---	0.0-1.5: Moist ---	0.0-1.0: Moist 1.0-1.5: Wet	0.0-1.5: Wet ---	0.0-1.5: Wet ---	0.0-1.0: Moist 1.0-1.5: Wet	0.0-1.0: Moist 1.0-1.5: Wet	0.0-1.5: Moist ---	0.0-1.5: Moist ---	0.0-1.5: Wet ---	0.0-1.5: Wet ---	0.0-1.5: Wet ---
Rock outcrop.													

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
648B:													
Sconsin---------	B	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-1.5: Moist 1.5-2.5: Wet 2.5-6.7: Moist	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---
669D:													
Fremstadt, stony	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Pomroy----------	C	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-2.0: Moist 2.0-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
671B:													
Spoonerhill, stony----------	A	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	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	0.0-6.7: Moist --- --- ---
Spoonerhill-----	A	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- --- ---	0.0-6.7: Moist --- --- ---	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	0.0-6.7: Moist --- --- ---
706A:													
Winterfield-----	A/D	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	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
Totagatic-------	D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	--- ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.0-6.7: Wet

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
715A:													
Mora----------	C	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-0.5: Moist 0.5-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist
717B:													
Milaca----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	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	0.0-6.7: Moist --- ---
717C:													
Milaca----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	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	0.0-6.7: Moist --- ---
720F:													
Haustrup--------	D	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist	0.0-1.0: Moist
Lundeen---------	D	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist
Rock outcrop.													
726B:													
Sissabagama-----	A	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.5: Moist 2.5-5.0: Wet 5.0-6.7: Moist	0.0-3.0: Moist 3.0-6.7: Wet ---	0.0-3.5: Moist 3.5-6.7: Wet ---	0.0-1.0: Dry 1.0-5.5: Moist 5.5-6.7: Wet	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-4.0: Moist 4.0-4.5: Wet 4.5-6.7: Moist	0.0-6.7: Moist --- ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
742B:													
Milaca----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	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	0.0-6.7: Moist --- ---
742C:													
Milaca----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	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	0.0-6.7: Moist --- ---
742D:													
Milaca----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	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	0.0-6.7: Moist --- ---
755A:													
Moppet----------	B	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	0.0-2.5: 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	0.0-4.5: Moist 4.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet
Fordum----------	D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
771A:													
Lenroot---------	A	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-5.0: Moist 5.0-6.7: Wet ---	0.0-3.5: Moist 3.5-6.7: Wet ---	0.0-2.0: Moist 2.0-6.7: Wet ---	0.0-2.5: Moist 2.5-6.7: Wet ---	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-0.5: Dry 0.5-4.5: Moist 4.5-6.7: Wet	0.0-1.0: Dry 1.0-5.0: Moist 5.0-6.7: 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 ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
812B:													
Mora----------	C	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist	0.0-0.5: Moist 0.5-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-1.5: Moist 1.5-3.5: Wet 3.5-6.7: Moist
825A:													
Meehan----------	B	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
896A:													
Wurtsmith-------	A	0.0-4.0: Moist 4.0-6.0: Wet ---	0.0-5.0: Moist 5.0-6.0: Wet ---	0.0-3.5: Moist 3.5-6.0: Wet ---	0.0-2.0: Moist 2.0-6.0: Wet ---	0.0-2.5: Moist 2.5-6.0: Wet ---	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-0.5: Dry 0.5-4.5: Moist 4.5-6.7: Wet	0.0-1.0: Dry 1.0-5.0: Moist 5.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: 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 ---
980A:													
Soderbeck-------	D	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist	0.0-0.5: Moist 0.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Moist 1.0-4.0: Wet 4.0-6.7: Moist	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-2.0: Moist 2.0-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Moist 1.0-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-4.0: Wet 4.0-6.7: Moist
1070C:													
Fremstadt-------	A	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-1.5: Dry 1.5-6.0: Moist	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---
Cress----------	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
1070D:													
Fremstadt-------	A	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-1.5: Dry 1.5-6.0: Moist	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---	0.0-6.0: Moist ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
1070D:													
Cress----------	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
1080B:													
Spoonerhill-----	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.0: Moist	0.0-2.5: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.5: Moist	0.0-6.7: Moist
		---	---	---	2.0-3.5: Wet	2.5-3.5: Wet	---	---	---	---	---	2.5-3.5: Wet	---
		---	---	---	3.5-6.7: Moist	3.5-6.7: Moist	---	---	---	---	---	3.5-6.7: Moist	---
Spoonerhill, stony----------	A	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.0: Moist	0.0-2.5: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.5: Moist	0.0-6.7: Moist
		---	---	---	2.0-3.5: Wet	2.5-3.5: Wet	---	---	---	---	---	2.5-3.5: Wet	---
		---	---	---	3.5-6.7: Moist	3.5-6.7: Moist	---	---	---	---	---	3.5-6.7: Moist	---
Cress----------	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
2002. Udorthents, earthen dams													
2015. Pits													
2050. Landfill													
3011A:													
Barronett-------	B/D	0.0-1.5: Moist	0.0-5.5: Moist	0.0-1.0: Moist	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7: Wet	0.0-2.0: Moist	0.0-2.0: Moist	0.0-4.0: Moist	0.0-1.5: Wet	0.0-2.5: Wet	0.0-0.5: Moist
		1.5-2.5: Wet	5.5-6.7: Wet	1.0-2.5: Wet	---	---	---	2.0-6.7: Wet	2.0-6.7: Wet	4.0-6.7: Wet	1.5-4.0: Moist	2.5-4.5: Moist	0.5-2.5: Wet
		2.5-5.0: Moist	---	2.5-6.7: Moist	---	---	---	---	---	---	4.0-6.7: Wet	4.5-6.7: Wet	2.5-4.5: Moist
		5.0-6.7: Wet	---	---	---	---	---	---	---	---	---	---	4.5-6.7: Wet

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
3082E:													
Braham----------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Shawano---------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
3114A:													
Saprists--------	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
Aquents---------	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
Aquepts---------	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
3125A:													
Meehan----------	A	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
3126A:													
Wurtsmith-------	A	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-5.0: Moist 5.0-6.7: Wet ---	0.0-3.5: Moist 3.5-6.7: Wet ---	0.0-2.0: Moist 2.0-6.7: Wet ---	0.0-2.5: Moist 2.5-6.7: Wet ---	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-0.5: Dry 0.5-4.5: Moist 4.5-6.7: Wet	0.0-1.0: Dry 1.0-5.0: Moist 5.0-6.7: 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 ---
3312B:													
Glendenning, very stony-----	C	0.0-2.5: Moist 2.5-5.5: Wet 5.5-6.7: Moist	0.0-2.5: Moist 2.5-5.5: Wet 5.5-6.7: Moist	0.0-1.5: Moist 1.5-5.5: Wet 5.5-6.7: Moist	0.0-0.5: Moist 0.5-5.5: Wet 5.5-6.7: Moist	0.0-1.0: Moist 1.0-5.5: Wet 5.5-6.7: Moist	0.0-3.0: Moist 3.0-5.5: Wet 5.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-5.5: Wet 5.5-6.7: Moist	0.0-2.0: Moist 2.0-5.5: Wet 5.5-6.7: Moist	0.0-1.0: Moist 1.0-5.5: Wet 5.5-6.7: Moist	0.0-1.5: Moist 1.5-5.5: Wet 5.5-6.7: Moist

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
3312B:													
Glendenning-----	C	0.0-2.5: Moist 2.5-5.5: Wet 5.5-6.7: Moist	0.0-2.5: Moist 2.5-5.5: Wet 5.5-6.7: Moist	0.0-1.5: Moist 1.5-5.5: Wet 5.5-6.7: Moist	0.0-0.5: Moist 0.5-5.5: Wet 5.5-6.7: Moist	0.0-1.0: Moist 1.0-5.5: Wet 5.5-6.7: Moist	0.0-3.0: Moist 3.0-5.5: Wet 5.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-5.5: Wet 5.5-6.7: Moist	0.0-2.0: Moist 2.0-5.5: Wet 5.5-6.7: Moist	0.0-1.0: Moist 1.0-5.5: Wet 5.5-6.7: Moist	0.0-1.5: Moist 1.5-5.5: Wet 5.5-6.7: Moist
3336A:													
Fenander--------	B/D	0.0-1.5: Moist 1.5-2.5: Wet 2.5-5.0: Moist 5.0-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet --- ---	0.0-2.5: Wet 2.5-6.7: Moist --- ---	0.0-6.7: Wet --- --- ---	0.0-6.7: Wet --- --- ---	0.0-6.7: Wet --- --- ---	0.0-2.0: Moist 2.0-6.7: Wet --- ---	0.0-2.0: Moist 2.0-6.7: Wet --- ---	0.0-4.0: Moist 4.0-6.7: Wet --- ---	0.0-1.5: Wet 1.5-4.0: Moist 4.0-6.7: Wet ---	0.0-2.5: Wet 2.5-4.5: Moist 4.5-6.7: Wet ---	0.0-0.5: Moist 0.5-2.5: Wet 2.5-4.5: Moist 4.5-6.7: Wet
3403A:													
Loxley----------	A/D	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	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
Beseman---------	A/D	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	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
Dawson----------	A/D	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	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	0.0-0.5: Moist 0.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
3429B:													
Lara----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-6.7: Wet ---	0.0-3.0: Moist 3.0-5.0: Wet 5.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
3429C:													
Lara----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist	0.0-1.5: Moist 1.5-6.7: Wet ---	0.0-3.0: Moist 3.0-5.0: Wet 5.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
3446A:													
Newson----------	D	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-6.7: Wet ---	0.0-6.7: Wet ---	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-6.7: Wet ---	0.0-0.5: Moist 0.5-6.7: Wet
3448B:													
Grettum---------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.0: Moist 6.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.0: Moist 6.0-6.7: Wet	0.0-6.7: Moist ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
3448C:													
Grettum---------	B	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.0: Moist 6.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-6.0: Moist 6.0-6.7: Wet	0.0-6.7: Moist ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
3510B:													
Pomroy----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-2.0: Moist 2.0-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Fremstadt-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Fremstadt, stony	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
3510C:													
Pomroy----------	C	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-2.0: Moist 2.0-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
Fremstadt-------	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
Fremstadt, stony	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 ---	0.0-1.0: Dry 1.0-6.7: Moist	0.0-1.5: Dry 1.5-6.7: Moist	0.0-6.7: Moist ---	0.0-6.7: Moist ---	0.0-6.7: Moist ---
3511A:													
Bushville-------	C	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-0.5: Moist 0.5-3.5: Wet 3.5-6.7: Moist	0.0-1.0: Moist 1.0-3.5: Wet 3.5-6.7: Moist	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-3.0: Moist 3.0-3.5: Wet 3.5-6.7: Moist	0.0-6.7: Moist --- ---	0.0-2.5: Moist 2.5-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist	0.0-2.0: Moist 2.0-3.5: Wet 3.5-6.7: Moist
3516A:													
Slimlake--------	B	0.0-4.5: Moist 4.5-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-5.0: Moist 5.0-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-4.5: Moist 4.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet
3625A:													
Lino----------	A	0.0-3.0: Moist 3.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-0.5: Moist 0.5-6.7: Wet	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.5: Moist 2.5-6.7: Wet	0.0-3.5: Moist 3.5-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
3626A:													
Crex----------	B	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-5.0: Moist 5.0-6.7: Wet ---	0.0-3.5: Moist 3.5-6.7: Wet ---	0.0-2.0: Moist 2.0-6.7: Wet ---	0.0-2.5: Moist 2.5-6.7: Wet ---	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-0.5: Dry 0.5-4.5: Moist 4.5-6.7: Wet	0.0-1.0: Dry 1.0-5.0: Moist 5.0-6.7: Wet	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-3.5: Moist 3.5-6.7: Wet ---	0.0-4.0: Moist 4.0-6.7: Wet ---	0.0-3.5: Moist 3.5-6.7: Wet ---

Table 25.--Soil Moisture Status by Depth--Continued

Map symbol and soil name	Hydro-logic group	January	February	March	April	May	June	July	August	September	October	November	December
3629B:													
Perida----------	A	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-3.5: Moist 3.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-5.5: Moist 5.5-6.0: Wet 6.0-6.7: Moist	0.0-1.0: Dry 1.0-6.7: Moist ---	0.0-1.5: Dry 1.5-6.7: Moist ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
3636B:													
Plainbo---------	B	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-1.0: Dry 1.0-2.5: Moist	0.0-1.0: Dry 1.0-2.5: Moist	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---
3636C:													
Plainbo---------	B	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-1.0: Dry 1.0-2.5: Moist	0.0-1.0: Dry 1.0-2.5: Moist	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---	0.0-2.5: Moist ---
M-W. Miscellaneous water													
W. Water													

Table 26.--Flooding Frequency and Duration

(See text for definitions of terms used in this table. Absence of an entry indicates that data were not estimated)

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
3A:												
Totagatic--------	Rare Brief	Rare Brief	Occasional Brief	Frequent Long	Frequent Long	Occasional Brief	Rare Brief	Rare Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
Bowstring--------	Rare Brief	Rare Brief	Occasional Long	Frequent Long	Frequent Long	Occasional Long	Rare Brief	Rare Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
Ausable----------	Rare Brief	Rare Brief	Occasional Long	Frequent Long	Frequent Long	Occasional Long	Rare Brief	Rare Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
12A:												
Makwa-----------	Rare Brief	Rare Brief	Occasional Long	Frequent Long	Frequent Long	Occasional Long	Rare Brief	Rare Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
22A:												
Comstock--------	None	None	None	None	None	None	None	None	None	None	None	None
27A:												
Scott Lake------	None	None	None	None	None	None	None	None	None	None	None	None
28B:												
Haugen, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Haugen----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
28C:												
Haugen, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Haugen----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
38A:												
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
38B:												
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
38C:												
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
38D:												
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
42D:												
Amery----------	None	None	None	None	None	None	None	None	None	None	None	None
43B:												
Antigo----------	None	None	None	None	None	None	None	None	None	None	None	None
43C:												
Antigo----------	None	None	None	None	None	None	None	None	None	None	None	None
63A:												
Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
63B:												
Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
63C:												
Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
64A:												
Totagatic-------	Rare Brief	Rare Brief	Occasional Brief	Frequent Long	Frequent Long	Occasional Brief	Rare Brief	Rare Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
Winterfield-----	Rare Brief	Rare Brief	Occasional Brief	Frequent Long	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
69C:												
Keweenaw--------	None	None	None	None	None	None	None	None	None	None	None	None
Sayner----------	None	None	None	None	None	None	None	None	None	None	None	None
Vilas----------	None	None	None	None	None	None	None	None	None	None	None	None
69E:												
Keweenaw--------	None	None	None	None	None	None	None	None	None	None	None	None
Sayner----------	None	None	None	None	None	None	None	None	None	None	None	None
Vilas----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
82B:												
Cutaway---------	None	None	None	None	None	None	None	None	None	None	None	None
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None
82C:												
Cutaway---------	None	None	None	None	None	None	None	None	None	None	None	None
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None
83A:												
Smestad---------	None	None	None	None	None	None	None	None	None	None	None	None
85B:												
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
85C:												
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
86A:												
Indus-----------	None	None	None	None	None	None	None	None	None	None	None	None
Alango----------	None	None	None	None	None	None	None	None	None	None	None	None
89A:												
Wildwood--------	None	None	None	None	None	None	None	None	None	None	None	None
96B:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
96C:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
96D:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
100B:												
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
100C:												
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
100D:												
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
120B:												
Kost	None	None	None	None	None	None	None	None	None	None	None	None
127D:												
Amery	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt	None	None	None	None	None	None	None	None	None	None	None	None
127E:												
Amery	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt	None	None	None	None	None	None	None	None	None	None	None	None
151A:												
Bluffton	None	None	None	None	None	None	None	None	None	None	None	None
152A:												
Alstad	None	None	None	None	None	None	None	None	None	None	None	None
154E:												
Cushing	None	None	None	None	None	None	None	None	None	None	None	None
156B:												
Magnor, very stony	None	None	None	None	None	None	None	None	None	None	None	None
Magnor	None	None	None	None	None	None	None	None	None	None	None	None
157B:												
Freeon, very stony	None	None	None	None	None	None	None	None	None	None	None	None
Freeon	None	None	None	None	None	None	None	None	None	None	None	None
157C:												
Freeon, very stony	None	None	None	None	None	None	None	None	None	None	None	None
Freeon	None	None	None	None	None	None	None	None	None	None	None	None
160A:												
Oesterle	None	None	None	None	None	None	None	None	None	None	None	None
165B:												
Elderon	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
185B:												
Tradelake-------	None	None	None	None	None	None	None	None	None	None	None	None
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
185C:												
Tradelake-------	None	None	None	None	None	None	None	None	None	None	None	None
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
185D:												
Tradelake-------	None	None	None	None	None	None	None	None	None	None	None	None
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
185E:												
Tradelake-------	None	None	None	None	None	None	None	None	None	None	None	None
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
189A:												
Siren----------	None	None	None	None	None	None	None	None	None	None	None	None
193A:												
Minocqua--------	None	None	None	None	None	None	None	None	None	None	None	None
337A:												
Plover----------	None	None	None	None	None	None	None	None	None	None	None	None
368B:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
368C:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
368D:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
368E:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
380B:												
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
380C:												
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
380D:												
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
383B:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
383C:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
383D:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
392C:												
Rockmarsh-------	None	None	None	None	None	None	None	None	None	None	None	None
Dairyland-------	None	None	None	None	None	None	None	None	None	None	None	None
Makwa----------	None	None	None	None	None	None	None	None	None	None	None	None
396B:												
Friendship------	None	None	None	None	None	None	None	None	None	None	None	None
Wurtsmith-------	None	None	None	None	None	None	None	None	None	None	None	None
Grayling--------	None	None	None	None	None	None	None	None	None	None	None	None
397A:												
Perchlake-------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
399B:												
Grayling--------	None	None	None	None	None	None	None	None	None	None	None	None
399C:												
Grayling--------	None	None	None	None	None	None	None	None	None	None	None	None
399D:												
Grayling--------	None	None	None	None	None	None	None	None	None	None	None	None
406A:												
Loxley----------	None	None	None	None	None	None	None	None	None	None	None	None
407A:												
Seelyeville-----	None	None	None	None	None	None	None	None	None	None	None	None
Markey----------	None	None	None	None	None	None	None	None	None	None	None	None
410A:												
Seelyeville-----	None	None	None	None	None	None	None	None	None	None	None	None
Cathro----------	None	None	None	None	None	None	None	None	None	None	None	None
419A:												
Seelyeville-----	None	None	None	None	None	None	None	None	None	None	None	None
Cathro----------	None	None	None	None	None	None	None	None	None	None	None	None
Markey----------	None	None	None	None	None	None	None	None	None	None	None	None
421A:												
Dora----------	None	None	None	None	None	None	None	None	None	None	None	None
Markey----------	None	None	None	None	None	None	None	None	None	None	None	None
Seelyeville-----	None	None	None	None	None	None	None	None	None	None	None	None
422A:												
Seelyeville-----	None	None	None	None	None	None	None	None	None	None	None	None
Cathro----------	None	None	None	None	None	None	None	None	None	None	None	None
Rondeau---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
426B:												
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
426C:												
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
426D:												
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
430A:												
Freya----------	None	None	None	None	None	None	None	None	None	None	None	None
439B:												
Graycalm--------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
439C:												
Graycalm--------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
439D:												
Graycalm--------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
442C:												
Haugen----------	None	None	None	None	None	None	None	None	None	None	None	None
Greenwood-------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
443D:												
Amery----------	None	None	None	None	None	None	None	None	None	None	None	None
Greenwood-------	None	None	None	None	None	None	None	None	None	None	None	None
459A:												
Loxley----------	None	None	None	None	None	None	None	None	None	None	None	None
Daisybay--------	None	None	None	None	None	None	None	None	None	None	None	None
Dawson----------	None	None	None	None	None	None	None	None	None	None	None	None
461A:												
Bowstring-------	Rare Brief	Rare Brief	Occasional Long	Frequent Long	Frequent Long	Occasional Long	Rare Brief	Rare Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
465A:												
Newson----------	None	None	None	None	None	None	None	None	None	None	None	None
Meehan----------	None	None	None	None	None	None	None	None	None	None	None	None
469E:												
Bigisland-------	None	None	None	None	None	None	None	None	None	None	None	None
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
471B:												
Dairyland-------	None	None	None	None	None	None	None	None	None	None	None	None
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
471C:												
Dairyland-------	None	None	None	None	None	None	None	None	None	None	None	None
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
472A:												
Rockmarsh-------	Rare Brief	Rare Brief	Occasional Brief	Frequent Long	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
Clemens---------	Rare Brief	Rare Brief	Occasional Brief	Frequent Long	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
473A:												
Dairyland-------	None	None	None	None	None	None	None	None	None	None	None	None
Skog----------	None	None	None	Rare Brief	None	None	None	None	None	None	None	None
484A:												
Greenwood-------	None	None	None	None	None	None	None	None	None	None	None	None
Beseman---------	None	None	None	None	None	None	None	None	None	None	None	None
485C:												
Lupton----------	None	None	None	None	None	None	None	None	None	None	None	None
Tawas----------	None	None	None	None	None	None	None	None	None	None	None	None
495B:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
Grettum---------	None	None	None	None	None	None	None	None	None	None	None	None
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
495C:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
Grettum---------	None	None	None	None	None	None	None	None	None	None	None	None
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
495D:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
Grettum---------	None	None	None	None	None	None	None	None	None	None	None	None
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
496B:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
496C:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
496D:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
497A:												
Meenon----------	None	None	None	None	None	None	None	None	None	None	None	None
521A:												
Dody----------	None	None	None	None	None	None	None	None	None	None	None	None
523A:												
Nokasippi--------	None	None	None	None	None	None	None	None	None	None	None	None
529B:												
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
531A:												
Stengel---------	None	None	None	None	None	None	None	None	None	None	None	None
542B:												
Haugen, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Haugen----------	None	None	None	None	None	None	None	None	None	None	None	None
542C:												
Haugen, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Haugen----------	None	None	None	None	None	None	None	None	None	None	None	None
544F:												
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
Mahtomedi--------	None	None	None	None	None	None	None	None	None	None	None	None
553B:												
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None
553C:												
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None
553D:												
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None
555A:												
Fordum----------	Rare Brief	Rare Brief	Occasional Brief	Frequent Long	Frequent Long	Occasional Brief	Rare Brief	Rare Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
557B:												
Shawano---------	None	None	None	None	None	None	None	None	None	None	None	None
557C:												
Shawano---------	None	None	None	None	None	None	None	None	None	None	None	None
557D:												
Shawano---------	None	None	None	None	None	None	None	None	None	None	None	None
586A:												
Chelmo----------	None	None	None	None	None	None	None	None	None	None	None	None
600A:												
Haplosaprists---	None	None	None	None	None	None	None	None	None	None	None	None
Psammaquents----	None	None	None	None	None	None	None	None	None	None	None	None
615B:												
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
615C:												
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
615D:												
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
620C:												
Lundeen---------	None	None	None	None	None	None	None	None	None	None	None	None
Haustrup--------	None	None	None	None	None	None	None	None	None	None	None	None
Rock outcrop.												
621A:												
Bjorkland-------	None	None	None	None	None	None	None	None	None	None	None	None
623A:												
Capitola--------	None	None	None	None	None	None	None	None	None	None	None	None
624A:												
Ossmer----------	None	None	None	None	None	None	None	None	None	None	None	None
631A:												
Giese----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
632A:												
Aftad	None	None	None	None	None	None	None	None	None	None	None	None
632B:												
Aftad	None	None	None	None	None	None	None	None	None	None	None	None
632C:												
Aftad	None	None	None	None	None	None	None	None	None	None	None	None
634C:												
Drylanding	None	None	None	None	None	None	None	None	None	None	None	None
Beartree	None	None	None	None	None	None	None	None	None	None	None	None
Rock outcrop.												
635C:												
Drylanding	None	None	Rare Brief	Rare Brief	Rare Brief	None	None	None	None	None	None	None
Beartree	None	None	Rare Brief	Rare Brief	Rare Brief	Rare Brief	None	None	None	None	None	None
Rock outcrop.												
648B:												
Sconsin	None	None	None	None	None	None	None	None	None	None	None	None
669D:												
Fremstadt, stony	None	None	None	None	None	None	None	None	None	None	None	None
Pomroy	None	None	None	None	None	None	None	None	None	None	None	None
671B:												
Spoonerhill, stony	None	None	None	None	None	None	None	None	None	None	None	None
Spoonerhill	None	None	None	None	None	None	None	None	None	None	None	None
706A:												
Winterfield	Rare Brief	Rare Brief	Occasional Brief	Frequent Long	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
Totagatic	Rare Brief	Rare Brief	Occasional Brief	Frequent Long	Frequent Long	Occasional Brief	Rare Brief	Rare Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
715A:												
Mora----------	None	None	None	None	None	None	None	None	None	None	None	None
717B:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
717C:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
720F:												
Haustrup--------	None	None	None	None	None	None	None	None	None	None	None	None
Lundeen---------	None	None	None	None	None	None	None	None	None	None	None	None
Rock outcrop.												
726B:												
Sissabagama-----	None	None	None	None	None	None	None	None	None	None	None	None
742B:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
742C:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
742D:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
755A:												
Moppet----------	Very rare Very brief	Very rare Very brief	Rare Very brief	Occasional Brief	Occasional Brief	Rare Very brief	Very rare Very brief	Very rare Very brief	Rare Very brief	Rare Very brief	Rare Very brief	Very rare Very brief
Fordum----------	Rare Brief	Rare Brief	Occasional Brief	Frequent Long	Frequent Long	Occasional Brief	Rare Brief	Rare Brief	Occasional Brief	Occasional Brief	Occasional Brief	Rare Brief
771A:												
Lenroot---------	None	None	None	None	None	None	None	None	None	None	None	None
812B:												
Mora----------	None	None	None	None	None	None	None	None	None	None	None	None
825A:												
Meehan----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
896A:												
Wurtsmith-------	None	None	None	None	None	None	None	None	None	None	None	None
980A:												
Soderbeck-------	None	None	None	Rare Brief	None	None	None	None	None	None	None	None
1070C:												
Fremstadt-------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
1070D:												
Fremstadt-------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
1080B:												
Spoonerhill-----	None	None	None	None	None	None	None	None	None	None	None	None
Spoonerhill, stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
2002. Udorthents, earthen dams												
2015. Pits												
2050. Landfill												
3011A:												
Barronett-------	None	None	None	None	None	None	None	None	None	None	None	None
3082E:												
Braham----------	None	None	None	None	None	None	None	None	None	None	None	None
Shawano---------	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
3114A:												
Saprists	None	None	None	None	None	None	None	None	None	None	None	None
Aquents	None	None	None	None	None	None	None	None	None	None	None	None
Aquepts	None	None	None	None	None	None	None	None	None	None	None	None
3125A:												
Meehan	None	None	None	None	None	None	None	None	None	None	None	None
3126A:												
Wurtsmith	None	None	None	None	None	None	None	None	None	None	None	None
3312B:												
Glendenning, very stony	None	None	None	None	None	None	None	None	None	None	None	None
Glendenning	None	None	None	None	None	None	None	None	None	None	None	None
3336A:												
Fenander	None	None	None	None	None	None	None	None	None	None	None	None
3403A:												
Loxley	None	None	None	None	None	None	None	None	None	None	None	None
Beseman	None	None	None	None	None	None	None	None	None	None	None	None
Dawson	None	None	None	None	None	None	None	None	None	None	None	None
3429B:												
Lara	None	None	None	None	None	None	None	None	None	None	None	None
3429C:												
Lara	None	None	None	None	None	None	None	None	None	None	None	None
3446A:												
Newson	None	None	None	None	None	None	None	None	None	None	None	None
3448B:												
Grettum	None	None	None	None	None	None	None	None	None	None	None	None
3448C:												
Grettum	None	None	None	None	None	None	None	None	None	None	None	None

Table 26.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
3510B:												
Pomroy----------	None	None	None	None	None	None	None	None	None	None	None	None
Fremstadt-------	None	None	None	None	None	None	None	None	None	None	None	None
Fremstadt, stony	None	None	None	None	None	None	None	None	None	None	None	None
3510C:												
Pomroy----------	None	None	None	None	None	None	None	None	None	None	None	None
Fremstadt-------	None	None	None	None	None	None	None	None	None	None	None	None
Fremstadt, stony	None	None	None	None	None	None	None	None	None	None	None	None
3511A:												
Bushville-------	None	None	None	None	None	None	None	None	None	None	None	None
3516A:												
Slimlake--------	None	None	None	None	None	None	None	None	None	None	None	None
3625A:												
Lino----------	None	None	None	None	None	None	None	None	None	None	None	None
3626A:												
Crex----------	None	None	None	None	None	None	None	None	None	None	None	None
3629B:												
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
3636B:												
Plainbo---------	None	None	None	None	None	None	None	None	None	None	None	None
3636C:												
Plainbo---------	None	None	None	None	None	None	None	None	None	None	None	None
M-W. Miscellaneous water												
W. Water												

Table 27.--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 soil name	January	February	March	April	May	June	July	August	September	October	November	December
3A:												
Totagatic	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
Bowstring	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	Occasional Brief Depth: 0.5	None
Ausable	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	Occasional Brief Depth: 0.5	None
12A:												
Makwa	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	Occasional Brief Depth: 0.5	None
22A:												
Comstock	None	None	None	None	None	None	None	None	None	None	None	None
27A:												
Scott Lake	None	None	None	None	None	None	None	None	None	None	None	None
28B:												
Haugen, very stony	None	None	None	None	None	None	None	None	None	None	None	None
Haugen	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt, very stony	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
28C:												
Haugen, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Haugen----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
38A:												
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
38B:												
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
38C:												
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
38D:												
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
42D:												
Amery----------	None	None	None	None	None	None	None	None	None	None	None	None
43B:												
Antigo----------	None	None	None	None	None	None	None	None	None	None	None	None
43C:												
Antigo----------	None	None	None	None	None	None	None	None	None	None	None	None
63A:												
Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
63B:												
Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
63C:												
Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
64A:												
Totagatic-------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
64A:												
Winterfield-----	None	None	None	None	None	None	None	None	None	None	None	None
69C:												
Keweenaw--------	None	None	None	None	None	None	None	None	None	None	None	None
Sayner----------	None	None	None	None	None	None	None	None	None	None	None	None
Vilas----------	None	None	None	None	None	None	None	None	None	None	None	None
69E:												
Keweenaw--------	None	None	None	None	None	None	None	None	None	None	None	None
Sayner----------	None	None	None	None	None	None	None	None	None	None	None	None
Vilas----------	None	None	None	None	None	None	None	None	None	None	None	None
82B:												
Cutaway---------	None	None	None	None	None	None	None	None	None	None	None	None
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None
82C:												
Cutaway---------	None	None	None	None	None	None	None	None	None	None	None	None
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None
83A:												
Smestad---------	None	None	None	None	None	None	None	None	None	None	None	None
85B:												
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
85C:												
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
86A:												
Indus----------	None	None	None	Occasional Brief	Occasional Brief	None	None	None	None	None	Occasional Brief	None
Alango----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
89A:												
Wildwood--------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
96B:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
96C:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
96D:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
100B:												
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
100C:												
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
100D:												
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
120B:												
Kost----------	None	None	None	None	None	None	None	None	None	None	None	None
127D:												
Amery----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
127E:												
Amery----------	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt---------	None	None	None	None	None	None	None	None	None	None	None	None
151A:												
Bluffton--------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
152A:												
Alstad----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
154E:												
Cushing---------	None	None	None	None	None	None	None	None	None	None	None	None
156B:												
Magnor, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Magnor----------	None	None	None	None	None	None	None	None	None	None	None	None
157B:												
Freeon, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Freeon----------	None	None	None	None	None	None	None	None	None	None	None	None
157C:												
Freeon, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Freeon----------	None	None	None	None	None	None	None	None	None	None	None	None
160A:												
Oesterle--------	None	None	None	None	None	None	None	None	None	None	None	None
165B:												
Elderon---------	None	None	None	None	None	None	None	None	None	None	None	None
185B:												
Tradelake-------	None	None	None	None	None	None	None	None	None	None	None	None
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
185C:												
Tradelake-------	None	None	None	None	None	None	None	None	None	None	None	None
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
185D:												
Tradelake-------	None	None	None	None	None	None	None	None	None	None	None	None
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None
185E:												
Tradelake-------	None	None	None	None	None	None	None	None	None	None	None	None
Taylor----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
189A:												
Siren	None	None	None	None	None	None	None	None	None	None	None	None
193A:												
Minocqua	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
337A:												
Plover	None	None	None	None	None	None	None	None	None	None	None	None
368B:												
Mahtomedi	None	None	None	None	None	None	None	None	None	None	None	None
Cress	None	None	None	None	None	None	None	None	None	None	None	None
368C:												
Mahtomedi	None	None	None	None	None	None	None	None	None	None	None	None
Cress	None	None	None	None	None	None	None	None	None	None	None	None
368D:												
Mahtomedi	None	None	None	None	None	None	None	None	None	None	None	None
Cress	None	None	None	None	None	None	None	None	None	None	None	None
368E:												
Mahtomedi	None	None	None	None	None	None	None	None	None	None	None	None
Cress	None	None	None	None	None	None	None	None	None	None	None	None
380B:												
Cress	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt	None	None	None	None	None	None	None	None	None	None	None	None
380C:												
Cress	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt	None	None	None	None	None	None	None	None	None	None	None	None
380D:												
Cress	None	None	None	None	None	None	None	None	None	None	None	None
Rosholt	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
383B:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
383C:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
383D:												
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
392C:												
Rockmarsh-------	None	None	None	None	None	None	None	None	None	None	None	None
Dairyland-------	None	None	None	None	None	None	None	None	None	None	None	None
Makwa----------	None	None	None	None	None	None	None	None	None	None	None	None
396B:												
Friendship------	None	None	None	None	None	None	None	None	None	None	None	None
Wurtsmith-------	None	None	None	None	None	None	None	None	None	None	None	None
Grayling--------	None	None	None	None	None	None	None	None	None	None	None	None
397A:												
Perchlake-------	None	None	None	None	None	None	None	None	None	None	None	None
399B:												
Grayling--------	None	None	None	None	None	None	None	None	None	None	None	None
399C:												
Grayling--------	None	None	None	None	None	None	None	None	None	None	None	None
399D:												
Grayling--------	None	None	None	None	None	None	None	None	None	None	None	None
406A:												
Loxley----------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None
407A:												
Seelyeville-----	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
407A:												
Markey----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
410A:												
Seelyeville-----	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
Cathro----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
419A:												
Seelyeville-----	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
Cathro----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
Markey----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
421A:												
Dora----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
Markey----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
421A:												
Seelyeville-----	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
422A:												
Seelyeville-----	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
Cathro----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
Rondeau---------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
426B:												
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
426C:												
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
426D:												
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
430A:												
Freya----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
439B:												
Graycalm--------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
439C:												
Graycalm--------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
439D:												
Graycalm--------	None	None	None	None	None	None	None	None	None	None	None	None
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
442C:												
Haugen----------	None	None	None	None	None	None	None	None	None	None	None	None
Greenwood-------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None
443D:												
Amery----------	None	None	None	None	None	None	None	None	None	None	None	None
Greenwood-------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None
459A:												
Loxley----------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None
Daisybay--------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
Dawson----------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
461A:												
Bowstring-------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	Occasional Brief Depth: 0.5	None
465A:												
Newson----------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
Meehan----------	None	None	None	None	None	None	None	None	None	None	None	None
469E:												
Bigisland-------	None	None	None	None	None	None	None	None	None	None	None	None
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
471B:												
Dairyland-------	None	None	None	None	None	None	None	None	None	None	None	None
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
471C:												
Dairyland-------	None	None	None	None	None	None	None	None	None	None	None	None
Emmert----------	None	None	None	None	None	None	None	None	None	None	None	None
472A:												
Rockmarsh-------	None	None	None	None	None	None	None	None	None	None	None	None
Clemens---------	None	None	None	None	None	None	None	None	None	None	None	None
473A:												
Dairyland-------	None	None	None	None	None	None	None	None	None	None	None	None
Skog----------	None	None	None	None	None	None	None	None	None	None	None	None
484A:												
Greenwood-------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
484A:												
Beseman---------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None
485C:												
Lupton----------	None	None	None	None	None	None	None	None	None	None	None	None
Tawas----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
495B:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
Grettum---------	None	None	None	None	None	None	None	None	None	None	None	None
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
495C:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
Grettum---------	None	None	None	None	None	None	None	None	None	None	None	None
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
495D:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
Grettum---------	None	None	None	None	None	None	None	None	None	None	None	None
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
496B:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
496C:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
496D:												
Karlsborg-------	None	None	None	None	None	None	None	None	None	None	None	None
497A:												
Meenon----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
521A:												
Dody----------	None	None	None	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	Occasional Brief Depth: 0.5	None
523A:												
Nokasippi-------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	Occasional Brief Depth: 0.5	None
529B:												
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
531A:												
Stengel---------	None	None	None	None	None	None	None	None	None	None	None	None
542B:												
Haugen, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Haugen----------	None	None	None	None	None	None	None	None	None	None	None	None
542C:												
Haugen, very stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Haugen----------	None	None	None	None	None	None	None	None	None	None	None	None
544F:												
Menahga---------	None	None	None	None	None	None	None	None	None	None	None	None
Mahtomedi-------	None	None	None	None	None	None	None	None	None	None	None	None
553B:												
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None
553C:												
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None
553D:												
Branstad--------	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
555A:												
Fordum----------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
557B:												
Shawano---------	None	None	None	None	None	None	None	None	None	None	None	None
557C:												
Shawano---------	None	None	None	None	None	None	None	None	None	None	None	None
557D:												
Shawano---------	None	None	None	None	None	None	None	None	None	None	None	None
586A:												
Chelmo----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
600A:												
Haplosaprists---	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0
Psammaquents----	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0	Frequent Very long Depth: 1.0
615B:												
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
615C:												
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
615D:												
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
620C:												
Lundeen---------	None	None	None	None	None	None	None	None	None	None	None	None
Haustrup--------	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
620C:												
Rock outcrop.												
621A:												
Bjorkland-------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
623A:												
Capitola--------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
624A:												
Ossmer----------	None	None	None	None	None	None	None	None	None	None	None	None
631A:												
Giese----------	None	None	Occasional Brief Depth: 0.5	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	Occasional Brief Depth: 0.5	None	None	None	None	Occasional Brief Depth: 0.5	None
632A:												
Aftad----------	None	None	None	None	None	None	None	None	None	None	None	None
632B:												
Aftad----------	None	None	None	None	None	None	None	None	None	None	None	None
632C:												
Aftad----------	None	None	None	None	None	None	None	None	None	None	None	None
634C:												
Drylanding------	None	None	None	None	None	None	None	None	None	None	None	None
Beartree--------	None	None	Rare Brief Depth: 1.0	Occasional Brief Depth: 1.0	Rare Brief Depth: 1.0	None	None	None	None	Occasional Brief Depth: 0.5	None	None
Rock outcrop.												
635C:												
Drylanding------	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
635C:												
Beartree--------	None	None	Rare Brief Depth: 1.0	Occasional Brief Depth: 1.0	Rare Brief Depth: 1.0	None	None	None	None	Occasional Brief Depth: 0.5	None	None
Rock outcrop.												
648B:												
Sconsin---------	None	None	None	None	None	None	None	None	None	None	None	None
669D:												
Fremstadt, stony	None	None	None	None	None	None	None	None	None	None	None	None
Pomroy----------	None	None	None	None	None	None	None	None	None	None	None	None
671B:												
Spoonerhill, stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Spoonerhill-----	None	None	None	None	None	None	None	None	None	None	None	None
706A:												
Winterfield-----	None	None	None	None	None	None	None	None	None	None	None	None
Totagatic-------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
715A:												
Mora----------	None	None	None	None	None	None	None	None	None	None	None	None
717B:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
717C:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
720F:												
Haustrup--------	None	None	None	None	None	None	None	None	None	None	None	None
Lundeen---------	None	None	None	None	None	None	None	None	None	None	None	None
Rock outcrop.												

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
726B:												
Sissabagama-----	None	None	None	None	None	None	None	None	None	None	None	None
742B:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
742C:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
742D:												
Milaca----------	None	None	None	None	None	None	None	None	None	None	None	None
755A:												
Moppet----------	None	None	None	None	None	None	None	None	None	None	None	None
Fordum----------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
771A:												
Lenroot---------	None	None	None	None	None	None	None	None	None	None	None	None
812B:												
Mora----------	None	None	None	None	None	None	None	None	None	None	None	None
825A:												
Meehan----------	None	None	None	None	None	None	None	None	None	None	None	None
896A:												
Wurtsmith-------	None	None	None	None	None	None	None	None	None	None	None	None
980A:												
Soderbeck-------	None	None	None	None	None	None	None	None	None	None	None	None
1070C:												
Fremstadt-------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
1070D:												
Fremstadt-------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
1080B:												
Spoonerhill-----	None	None	None	None	None	None	None	None	None	None	None	None
Spoonerhill, stony----------	None	None	None	None	None	None	None	None	None	None	None	None
Cress----------	None	None	None	None	None	None	None	None	None	None	None	None
2002. Udorthents, earthen dams												
2015. Pits												
2050. Landfill												
3011A:												
Barronett-------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
3082E:												
Braham----------	None	None	None	None	None	None	None	None	None	None	None	None
Shawano---------	None	None	None	None	None	None	None	None	None	None	None	None
3114A:												
Saprists--------	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6
Aquents---------	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6
Aquepts---------	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6	Frequent Very long Depth: 1.6

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
3125A:												
Meehan----------	None	None	None	None	None	None	None	None	None	None	None	None
3126A:												
Wurtsmith-------	None	None	None	None	None	None	None	None	None	None	None	None
3312B:												
Glendenning, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Glendenning-----	None	None	None	None	None	None	None	None	None	None	None	None
3336A:												
Fenander--------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
3403A:												
Loxley----------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None
Beseman---------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None
Dawson----------	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None
3429B:												
Lara----------	None	None	None	None	None	None	None	None	None	None	None	None
3429C:												
Lara----------	None	None	None	None	None	None	None	None	None	None	None	None
3446A:												
Newson----------	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
3448B:												
Grettum---------	None	None	None	None	None	None	None	None	None	None	None	None
3448C:												
Grettum---------	None	None	None	None	None	None	None	None	None	None	None	None
3510B:												
Pomroy----------	None	None	None	None	None	None	None	None	None	None	None	None
Fremstadt-------	None	None	None	None	None	None	None	None	None	None	None	None
Fremstadt, stony	None	None	None	None	None	None	None	None	None	None	None	None
3510C:												
Pomroy----------	None	None	None	None	None	None	None	None	None	None	None	None
Fremstadt-------	None	None	None	None	None	None	None	None	None	None	None	None
Fremstadt, stony	None	None	None	None	None	None	None	None	None	None	None	None
3511A:												
Bushville-------	None	None	None	None	None	None	None	None	None	None	None	None
3516A:												
Slimlake--------	None	None	None	None	None	None	None	None	None	None	None	None
3625A:												
Lino----------	None	None	None	None	None	None	None	None	None	None	None	None
3626A:												
Crex----------	None	None	None	None	None	None	None	None	None	None	None	None
3629B:												
Perida----------	None	None	None	None	None	None	None	None	None	None	None	None
3636B:												
Plainbo---------	None	None	None	None	None	None	None	None	None	None	None	None
3636C:												
Plainbo---------	None	None	None	None	None	None	None	None	None	None	None	None
M-W.												
Miscellaneous water												

Table 27.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
W. Water												

Table 28.--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 soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
3A:							
Totagatic	---	>80	4-12	25-30	Moderate	High	Moderate
Bowstring	---	>80	6-18	50-55	High	Moderate	Low
Ausable	---	>80	4-12	25-30	Moderate	Moderate	Low
12A:							
Makwa	---	>80	---	---	High	High	Low
22A:							
Comstock	---	>80	---	---	High	High	Moderate
27A:							
Scott Lake	---	>80	---	---	Moderate	Moderate	Moderate
28B:							
Haugen, very stony	Dense material	60-80	---	---	Moderate	Moderate	Moderate
Haugen	Dense material	60-80	---	---	Moderate	Moderate	Moderate
Rosholt, very stony	---	>80	---	---	Moderate	Low	Moderate
Rosholt	---	>80	---	---	Moderate	Low	Moderate
28C:							
Haugen, very stony	Dense material	60-80	---	---	Moderate	Moderate	Moderate
Haugen	Dense material	60-80	---	---	Moderate	Moderate	Moderate
Rosholt, very stony	---	>80	---	---	Moderate	Low	Moderate
Rosholt	---	>80	---	---	Moderate	Low	Moderate
38A:							
Rosholt	---	>80	---	---	Moderate	Low	Moderate
38B:							
Rosholt	---	>80	---	---	Moderate	Low	Moderate
38C:							
Rosholt	---	>80	---	---	Moderate	Low	Moderate
38D:							
Rosholt	---	>80	---	---	Moderate	Low	Moderate
42D:							
Amery	Dense material	60-80	---	---	Moderate	Low	Moderate
43B:							
Antigo	---	>80	---	---	Moderate	Low	Moderate
43C:							
Antigo	---	>80	---	---	Moderate	Low	Moderate
63A:							
Crystal Lake	---	>80	---	---	High	Moderate	Moderate

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
63B:							
Crystal Lake	---	>80	---	---	High	Moderate	Moderate
63C:							
Crystal Lake	---	>80	---	---	High	Moderate	Moderate
64A:							
Totagatic	---	>80	4-12	25-30	Moderate	High	Moderate
Winterfield	---	>80	---	---	Low	Low	Low
69C:							
Keweenaw	---	>80	---	---	Low	Low	Moderate
Sayner	---	>80	---	---	Low	Low	High
Vilas	---	>80	---	---	Low	Low	Moderate
69E:							
Keweenaw	---	>80	---	---	Low	Low	Moderate
Sayner	---	>80	---	---	Low	Low	High
Vilas	---	>80	---	---	Low	Low	Moderate
82B:							
Cutaway	---	>80	---	---	Low	Moderate	Moderate
Branstad	---	>80	---	---	Moderate	Moderate	Moderate
82C:							
Cutaway	---	>80	---	---	Low	Moderate	Moderate
Branstad	---	>80	---	---	Moderate	Moderate	Moderate
83A:							
Smestad	---	>80	---	---	Moderate	High	Moderate
85B:							
Taylor	---	>80	---	---	Moderate	High	Moderate
85C:							
Taylor	---	>80	---	---	Moderate	High	Moderate
86A:							
Indus	---	>80	---	---	High	High	Moderate
Alango	---	>80	---	---	High	High	Moderate
89A:							
Wildwood	---	>80	0-6	6-12	High	High	Low
96B:							
Karlsborg	---	>80	---	---	Moderate	High	Moderate
96C:							
Karlsborg	---	>80	---	---	Moderate	High	Moderate
96D:							
Karlsborg	---	>80	---	---	Moderate	High	Moderate

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
100B:							
Menahga	---	>80	---	---	Low	Low	High
100C:							
Menahga	---	>80	---	---	Low	Low	High
100D:							
Menahga	---	>80	---	---	Low	Low	High
120B:							
Kost	---	>80	---	---	Low	Low	Moderate
127D:							
Amery	Dense material	60-80	---	---	Moderate	Low	Moderate
Rosholt	---	>80	---	---	Moderate	Low	Moderate
127E:							
Amery	Dense material	60-80	---	---	Moderate	Low	Moderate
Rosholt	---	>80	---	---	Moderate	Low	Moderate
151A:							
Bluffton	---	>80	---	---	High	High	Moderate
152A:							
Alstad	---	>80	---	---	High	Moderate	Moderate
154E:							
Cushing	---	>80	---	---	Moderate	Moderate	Moderate
156B:							
Magnor, very stony	Dense material	40-60	---	---	Moderate	Moderate	Moderate
Magnor	Dense material	40-60	---	---	Moderate	Moderate	Moderate
157B:							
Freeon, very stony	Dense material	40-60	---	---	Moderate	Moderate	Moderate
Freeon	Dense material	40-60	---	---	Moderate	Moderate	Moderate
157C:							
Freeon, very stony	Dense material	40-60	---	---	Moderate	Moderate	Moderate
Freeon	Dense material	40-60	---	---	Moderate	Moderate	Moderate
160A:							
Oesterle	---	>80	---	---	Moderate	Moderate	Moderate
165B:							
Elderon	---	>80	---	---	Low	Low	Moderate
185B:							
Tradelake	---	>80	---	---	Moderate	High	Moderate
Taylor	---	>80	---	---	Moderate	High	Moderate
185C:							
Tradelake	---	>80	---	---	Moderate	High	Moderate
Taylor	---	>80	---	---	Moderate	High	Moderate

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
185D:							
Tradelake	---	>80	---	---	Moderate	High	Moderate
Taylor	---	>80	---	---	Moderate	High	Moderate
185E:							
Tradelake	---	>80	---	---	Moderate	High	Moderate
Taylor	---	>80	---	---	Moderate	High	Moderate
189A:							
Siren	---	>80	---	---	Moderate	High	High
193A:							
Minocqua	---	>80	---	---	High	High	Moderate
337A:							
Plover	---	>80	---	---	Moderate	Moderate	Moderate
368B:							
Mahtomedi	---	>80	---	---	Low	Low	Moderate
Cress	---	>80	---	---	Low	Low	Moderate
368C:							
Mahtomedi	---	>80	---	---	Low	Low	Moderate
Cress	---	>80	---	---	Low	Low	Moderate
368D:							
Mahtomedi	---	>80	---	---	Low	Low	Moderate
Cress	---	>80	---	---	Low	Low	Moderate
368E:							
Mahtomedi	---	>80	---	---	Low	Low	Moderate
Cress	---	>80	---	---	Low	Low	Moderate
380B:							
Cress	---	>80	---	---	Low	Low	Moderate
Rosholt	---	>80	---	---	Moderate	Low	Moderate
380C:							
Cress	---	>80	---	---	Low	Low	Moderate
Rosholt	---	>80	---	---	Moderate	Low	Moderate
380D:							
Cress	---	>80	---	---	Low	Low	Moderate
Rosholt	---	>80	---	---	Moderate	Low	Moderate
383B:							
Mahtomedi	---	>80	---	---	Low	Low	Moderate
383C:							
Mahtomedi	---	>80	---	---	Low	Low	Moderate
383D:							
Mahtomedi	---	>80	---	---	Low	Low	Moderate

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
392C:							
Rockmarsh	Dense material	40-60	---	---	Moderate	High	Moderate
Dairyland	Dense material	40-60	---	---	Low	High	Low
Makwa	---	>80	---	---	High	High	Low
396B:							
Friendship	---	>80	---	---	Low	Low	Moderate
Wurtsmith	---	>80	---	---	Low	Low	High
Grayling	---	>80	---	---	Low	Low	Moderate
397A:							
Perchlake	---	>80	---	---	Low	Low	Moderate
399B:							
Grayling	---	>80	---	---	Low	Low	Moderate
399C:							
Grayling	---	>80	---	---	Low	Low	Moderate
399D:							
Grayling	---	>80	---	---	Low	Low	Moderate
406A:							
Loxley	---	>80	6-18	50-55	High	Moderate	High
407A:							
Seelyeville	---	>80	0-8	20-22	High	Moderate	Moderate
Markey	---	>80	0-4	10-12	High	Moderate	Low
410A:							
Seelyeville	---	>80	0-8	20-22	High	Moderate	Moderate
Cathro	---	>80	4-12	19-22	High	Moderate	Moderate
419A:							
Seelyeville	---	>80	0-8	20-22	High	Moderate	Moderate
Cathro	---	>80	4-12	19-22	High	Moderate	Moderate
Markey	---	>80	0-4	10-12	High	Moderate	Low
421A:							
Dora	---	>80	0-4	10-12	High	Moderate	Low
Markey	---	>80	0-4	10-12	High	Moderate	Low
Seelyeville	---	>80	0-8	20-22	High	Moderate	Moderate
422A:							
Seelyeville	---	>80	0-8	20-22	High	Moderate	Moderate
Cathro	---	>80	4-12	19-22	High	Moderate	Moderate
Rondeau	---	>80	0-8	19-22	High	High	Low

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
426B:							
Emmert	---	>80	---	---	Low	Low	Moderate
Mahtomedi	---	>80	---	---	Low	Low	Moderate
Menahga	---	>80	---	---	Low	Low	High
426C:							
Emmert	---	>80	---	---	Low	Low	Moderate
Mahtomedi	---	>80	---	---	Low	Low	Moderate
Menahga	---	>80	---	---	Low	Low	High
426D:							
Emmert	---	>80	---	---	Low	Low	Moderate
Mahtomedi	---	>80	---	---	Low	Low	Moderate
Menahga	---	>80	---	---	Low	Low	High
430A:							
Freya	---	>80	---	---	Low	Low	Moderate
439B:							
Graycalm	---	>80	---	---	Low	Low	High
Menahga	---	>80	---	---	Low	Low	High
439C:							
Graycalm	---	>80	---	---	Low	Low	High
Menahga	---	>80	---	---	Low	Low	High
439D:							
Graycalm	---	>80	---	---	Low	Low	High
Menahga	---	>80	---	---	Low	Low	High
442C:							
Haugen	Dense material	60-80	---	---	Moderate	Moderate	Moderate
Greenwood	---	>80	---	---	High	Moderate	High
443D:							
Amery	Dense material	60-80	---	---	Moderate	Low	Moderate
Greenwood	---	>80	---	---	High	Moderate	High
459A:							
Loxley	---	>80	6-18	50-55	High	Moderate	High
Daisybay	---	>80	0-12	0-12	High	High	High
Dawson	---	>80	4-18	30-36	High	Moderate	High
461A:							
Bowstring	---	>80	6-18	50-55	High	Moderate	Low
465A:							
Newson	---	>80	---	---	Moderate	High	High
Meehan	---	>80	---	---	Low	Low	High

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
469E:							
Bigisland	Dense material	40-60	---	---	Low	Low	Moderate
Milaca	Dense material	40-60	---	---	Moderate	Moderate	Moderate
471B:							
Dairyland	Dense material	40-60	---	---	Low	Low	Moderate
Emmert	---	>80	---	---	Low	Low	Moderate
471C:							
Dairyland	Dense material	40-60	---	---	Low	Low	Moderate
Emmert	---	>80	---	---	Low	Low	Moderate
472A:							
Rockmarsh	Dense material	40-60	---	---	Moderate	High	Moderate
Clemens	---	>80	---	---	Moderate	High	Moderate
473A:							
Dairyland	Dense material	40-60	---	---	Low	Low	Moderate
Skog	---	>80	---	---	Low	Low	Moderate
484A:							
Greenwood	---	>80	---	---	High	Moderate	High
Beseman	---	>80	4-18	12-36	High	High	High
485C:							
Lupton	---	>80	6-18	---	High	Moderate	Low
Tawas	---	>80	4-12	---	High	Moderate	Low
495B:							
Karlsborg	---	>80	---	---	Moderate	High	Moderate
Grettum	---	>80	---	---	Low	Low	Moderate
Perida	---	>80	---	---	Moderate	High	Moderate
495C:							
Karlsborg	---	>80	---	---	Moderate	High	Moderate
Grettum	---	>80	---	---	Low	Low	Moderate
Perida	---	>80	---	---	Moderate	High	Moderate
495D:							
Karlsborg	---	>80	---	---	Moderate	High	Moderate
Grettum	---	>80	---	---	Low	Low	Moderate
Perida	---	>80	---	---	Moderate	High	Moderate
496B:							
Karlsborg	---	>80	---	---	Moderate	High	Moderate
496C:							
Karlsborg	---	>80	---	---	Moderate	High	Moderate

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
496D:							
Karlsborg	---	>80	---	---	Moderate	High	Moderate
497A:							
Meenon	---	>80	---	---	Moderate	High	Moderate
521A:							
Dody	---	>80	---	---	High	High	Moderate
523A:							
Nokasippi	Dense material	30-50	---	---	High	High	Moderate
529B:							
Perida	---	>80	---	---	Moderate	High	Moderate
531A:							
Stengel	Abrupt textural change	16-24	---	---	Low	High	Moderate
542B:							
Haugen, very stony	Dense material	60-80	---	---	Moderate	Moderate	Moderate
Haugen	Dense material	60-80	---	---	Moderate	Moderate	Moderate
542C:							
Haugen, very stony	Dense material	60-80	---	---	Moderate	Moderate	Moderate
Haugen	Dense material	60-80	---	---	Moderate	Moderate	Moderate
544F:							
Menahga	---	>80	---	---	Low	Low	High
Mahtomedi	---	>80	---	---	Low	Low	Moderate
553B:							
Branstad	---	>80	---	---	Moderate	Moderate	Moderate
553C:							
Branstad	---	>80	---	---	Moderate	Moderate	Moderate
553D:							
Branstad	---	>80	---	---	Moderate	Moderate	Moderate
555A:							
Fordum	---	>80	---	---	High	High	Low
557B:							
Shawano	---	>80	---	---	Low	Low	High
557C:							
Shawano	---	>80	---	---	Low	Low	High
557D:							
Shawano	---	>80	---	---	Low	Low	High
586A:							
Chelmo	---	>80	---	---	High	High	Moderate
600A:							
Haplosaprists.							
Psammaquents.							

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
615B:							
Cress	---	>80	---	---	Low	Low	Moderate
615C:							
Cress	---	>80	---	---	Low	Low	Moderate
615D:							
Cress	---	>80	---	---	Low	Low	Moderate
620C:							
Lundeen	Bedrock (lithic)	20-40	---	---	High	Low	Moderate
Haustrup	Bedrock (lithic)	10-20	---	---	Moderate	Low	Moderate
Rock outcrop.							
621A:							
Bjorkland	---	>80	---	---	Moderate	Moderate	High
623A:							
Capitola	Dense material	20-40	---	---	High	High	Moderate
624A:							
Ossmer	---	>80	---	---	Moderate	Moderate	Moderate
631A:							
Giese	Dense material	40-80	---	---	High	High	High
632A:							
Aftad	---	>80	---	---	Moderate	Moderate	Moderate
632B:							
Aftad	---	>80	---	---	Moderate	Moderate	Moderate
632C:							
Aftad	---	>80	---	---	Moderate	Moderate	Moderate
634C:							
Drylanding	Bedrock (lithic)	10-20	---	---	High	Moderate	Low
Beartree	Bedrock (lithic)	10-20	---	---	High	High	Low
Rock outcrop.							
635C:							
Drylanding	Bedrock (lithic)	10-20	---	---	High	Moderate	Low
Beartree	Bedrock (lithic)	10-20	---	---	High	High	Low
Rock outcrop.							
648B:							
Sconsin	Dense material	20-38	---	---	Moderate	Moderate	Moderate
669D:							
Fremstadt, stony	---	>80	---	---	Low	Low	High
Pomroy	Dense material	40-60	---	---	Moderate	Moderate	Moderate

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
671B:							
Spoonerhill, stony-----	---	>80	---	---	Low	Low	Moderate
Spoonerhill----------	---	>80	---	---	Low	Low	Moderate
706A:							
Winterfield----------	---	>80	---	---	Low	Low	Low
Totagatic----------	---	>80	---	---	Moderate	High	Moderate
715A:							
Mora----------	Dense material	40-60	---	---	High	Moderate	Moderate
717B:							
Milaca----------	Dense material	40-60	---	---	Moderate	Moderate	Moderate
717C:							
Milaca----------	Dense material	40-60	---	---	Moderate	Moderate	Moderate
720F:							
Haustrup----------	Bedrock (lithic)	10-20	---	---	Moderate	Low	Moderate
Lundeen----------	Bedrock (lithic)	20-40	---	---	High	Low	Moderate
Rock outcrop.							
726B:							
Sissabagama----------	---	>80	---	---	Low	Low	Moderate
742B:							
Milaca----------	Dense material	40-60	---	---	Moderate	Moderate	Moderate
742C:							
Milaca----------	Dense material	40-60	---	---	Moderate	Moderate	Moderate
742D:							
Milaca----------	Dense material	40-60	---	---	Moderate	Moderate	Moderate
755A:							
Moppet----------	---	>80	---	---	Moderate	Moderate	Moderate
Fordum----------	---	>80	---	---	High	High	High
771A:							
Lenroot----------	---	>80	---	---	Low	Low	Moderate
812B:							
Mora----------	Dense material	40-60	---	---	High	Moderate	Moderate
825A:							
Meehan----------	---	>80	---	---	Low	Low	High
896A:							
Wurtsmith----------	---	>80	---	---	Low	Low	High
980A:							
Soderbeck----------	Bedrock (lithic)	40-60	---	---	Moderate	High	Moderate
1070C:							
Fremstadt----------	---	>80	---	---	Low	Low	Moderate
Cress----------	---	>80	---	---	Low	Low	Moderate

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
1070D:							
Fremstadt	---	>80	---	---	Low	Low	Moderate
Cress	---	>80	---	---	Low	Low	Moderate
1080B:							
Spoonerhill	---	>80	---	---	Low	Low	Moderate
Spoonerhill, stony	---	>80	---	---	Low	Low	Moderate
Cress	---	>80	---	---	Low	Low	Moderate
2002. Udorthents, earthen dams							
2015. Pits							
2050. Landfill							
3011A:							
Barronett	---	>80	---	---	High	High	Moderate
3082E:							
Braham	---	>80	---	---	Low	Moderate	Moderate
Shawano	---	>80	---	---	Low	Low	High
3114A:							
Saprists	---	>80	---	---	High	Moderate	Moderate
Aquents	---	>80	---	---	Moderate	High	High
Aquepts	---	>80	---	---	High	High	Moderate
3125A:							
Meehan	---	>80	---	---	Low	Low	High
3126A:							
Wurtsmith	---	>80	---	---	Low	Low	High
3312B:							
Glendenning, very stony	Dense material	60-80	---	---	Moderate	Moderate	Moderate
Glendenning	Dense material	60-80	---	---	Moderate	Moderate	Moderate
3336A:							
Fenander	---	>80	---	---	High	High	Low
3403A:							
Loxley	---	>80	6-18	50-55	High	Moderate	High
Beseman	---	>80	4-18	12-36	High	Moderate	High
Dawson	---	>80	4-18	30-36	High	Moderate	High
3429B:							
Lara	---	>80	---	---	Low	Low	High

Table 28.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
3429C:							
Lara	---	>80	---	---	Low	Low	High
3446A:							
Newson	---	>80	---	---	Moderate	High	High
3448B:							
Grettum	---	>80	---	---	Low	Low	Moderate
3448C:							
Grettum	---	>80	---	---	Low	Low	Moderate
3510B:							
Pomroy	Dense material	40-60	---	---	Moderate	Moderate	Moderate
Fremstadt	---	>80	---	---	Low	Low	High
Fremstadt, stony	---	>80	---	---	Low	Low	High
3510C:							
Pomroy	Dense material	40-60	---	---	Moderate	Moderate	Moderate
Fremstadt	---	>80	---	---	Low	Low	High
Fremstadt, stony	---	>80	---	---	Low	Low	High
3511A:							
Bushville	Dense material	40-60	---	---	Low	Moderate	Moderate
3516A:							
Slimlake	---	>80	---	---	Low	Low	Moderate
3625A:							
Lino	---	>80	---	---	Low	Low	Moderate
3626A:							
Crex	---	>80	---	---	Low	Low	High
3629B:							
Perida	---	>80	---	---	Moderate	High	Moderate
3636B:							
Plainbo	Bedrock (paralithic)	20-40	---	---	Low	Low	High
	Bedrock (lithic)	60-80					
3636C:							
Plainbo	Bedrock (paralithic)	20-40	---	---	Low	Low	High
	Bedrock (lithic)	60-80					
M-W.							
Miscellaneous water							
W.							
Water							

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Glossary

Many of the terms relating to landforms, geology, and geomorphology are defined in more detail in the "National Soil Survey Handbook" (available in local offices of the Natural Resources Conservation Service or on the Internet).

Ablation till. Loose, relatively permeable earthy material deposited during the downwasting of nearly static glacial ice, either contained within or accumulated on the surface of the glacier.

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. Unconsolidated material, such as gravel, sand, silt, clay, and various mixtures of these, deposited on land by running water.

Alpha,alpha-dipyridyl. A compound that when dissolved in ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction implies reducing conditions and the likely presence of redoximorphic features.

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 toward which a slope faces. Also called slope aspect.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

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 till deposited beneath the glacial 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 (geomorphology). 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.

Beach ridge. A low, essentially continuous mound of beach or beach-and-dune material accumulated by the action of waves and currents on the backshore of a beach, beyond the present limit of storm waves or the reach of ordinary tides, and occurring singly or as one of a series of approximately parallel deposits. The ridges are roughly parallel to the shoreline and represent successive positions of an advancing shoreline.

Bedding plane. A planar or nearly planar bedding surface that visibly separates each successive layer of stratified sediment or rock (of the same or different lithology) from the preceding or following layer; a plane of deposition. It commonly marks a change in the circumstances of deposition and may show a parting, a color difference, a change in particle size, or various combinations of these. The term is commonly applied to any bedding surface, even one that is conspicuously bent or deformed by folding.

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 saucer-, cup-, or trough-shaped depression formed by wind erosion on a preexisting dune or other sand deposit, especially in an area of shifting sand or loose soil or where protective vegetation is disturbed or destroyed; the adjoining accumulation of sand derived from the depression, where recognizable, is commonly included. Blowouts are commonly small.

Board foot. A unit of measurement represented by a board 1 foot wide, 1 foot long, and 1 inch thick.

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.

California bearing ratio (CBR). The load-supporting capacity of a soil as compared to that of standard crushed limestone, expressed as a ratio. First standardized in California. A soil having a CBR of 16 supports 16 percent of the load that would be supported by standard crushed limestone, per unit area, with the same degree of distortion.

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 and under similar climatic conditions but that 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. See Terracettes.

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. See Redoximorphic features.

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.

Clay spot (map symbol). A spot where the surface layer is silty clay or clay in an area where the surface layer of the surrounding soil is sandy loam, loam, silt loam, or coarser. Typically less than 4 acres.

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.

Closed depression (map symbol). A shallow, saucer-shaped area that is slightly lower on the landscape than the surrounding area and is without a natural outlet for surface drainage. Typically less than 4 acres.

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. Unconsolidated, unsorted earth material being transported or deposited on side slopes and/or at the base of slopes by mass movement (e.g., direct gravitational action) and by local, unconcentrated runoff.

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. See Redoximorphic features.

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.

Coprogenous earth (sedimentary peat). A type of limnic layer composed predominantly of fecal material derived from aquatic animals.

Cord. A unit of measurement of stacked wood. A standard cord occupies 128 cubic feet with dimensions of 4 feet by 4 feet by 8 feet.

Corrosion (geomorphology). A process of erosion whereby rocks and soil are removed or worn away by natural chemical processes, especially by the solvent action of running water, but also by other reactions, such as hydrolysis, hydration, carbonation, and oxidation.

Corrosion (soil survey interpretations). 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.

Culmination of the mean annual increment (CMAI). The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

Cut or fill area (map symbol). A small area where the original soil profile has been altered by the addition or removal of more than about 1 foot of soil material. Includes former pits that have been reclaimed. Each symbol represents one area or several closely grouped areas totaling less than 4 acres.

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 fan shaped and nearly flat; 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. An open depression has a 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 general term for a course or channel along which water moves in draining an area. A term restricted to relatively small, linear depressions that at some time move concentrated water and either do not have a defined channel or have only a small defined channel.

Drift. A general term applied to all mineral material (clay, silt, sand, gravel, and boulders) transported by a glacier and deposited directly by or from the ice or transported by running water emanating from a glacier. Drift includes unstratified material (till) that forms moraines and stratified deposits that form outwash plains, eskers, kames, varves, and glaciofluvial sediments. The term is generally applied to Pleistocene glacial deposits in areas that no longer contain glaciers.

Drumlin. A low, smooth, elongated oval hill, mound, or ridge of compact till that has a core of bedrock or drift. It commonly has a blunt nose facing the direction from which the ice approached and a gentler slope tapering in the other direction. The longer axis is parallel to the general direction of glacier flow. Drumlins are products of streamline (laminar) flow of glaciers, which molded the subglacial floor through a combination of erosion and deposition.

Dry spot (map symbol). A small area of moderately well drained to excessively drained soil within a poorly drained or very poorly drained area of mineral soil, or a somewhat poorly drained to excessively drained soil within a map unit consisting mainly of organic soil. Each symbol represents one area or several closely grouped areas totaling less than 4 acres.

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 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 deposit. Sand-, silt-, or clay-sized clastic material transported and deposited primarily by wind, commonly in the form of a dune or a sheet of sand or loess.

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 surficial lag concentration or layer of gravel and other rock fragments that remains on the soil surface after sheet or rill erosion or wind has removed the finer soil particles and that tends to protect the underlying soil from further erosion.

Erosion surface. A land surface shaped by the action of erosion, especially by running water.

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. Most commonly applied to cliffs produced by differential erosion.

Escarpment, bedrock (map symbol). A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Exposed material is hard or soft bedrock.

Escarpment, nonbedrock (map symbol). A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Exposed material is nonsoil or very shallow soil.

Esker. A long, narrow, sinuous, steep-sided ridge of stratified sand and gravel deposited as the bed of a stream flowing in an ice tunnel within or below the ice (subglacial) or between ice walls on top of the ice of a wasting glacier and left behind as high ground when the ice melted. Eskers range in length from less than a kilometer to more than 160 kilometers and in height from 3 to 30 meters.

Fan remnant. A general term for landforms that are the remaining parts of older fan landforms, such as alluvial fans, that have been either dissected or partially buried.

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.

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. The nearly level plain that borders a stream and is subject to flooding unless protected artificially.

Flood-plain landforms. A variety of constructional and erosional features produced by stream channel migration and flooding. Examples include backswamps, flood-plain splays, meanders, meander belts, meander scrolls, oxbow lakes, and natural levees.

Flood-plain splay. A fan-shaped deposit or other outspread deposit formed where an overloaded stream breaks through a levee (natural or artificial) and deposits its material (commonly coarse grained) on the flood plain.

Flood-plain step. An essentially flat, terrace-like alluvial surface within a valley that is frequently covered by floodwater from the present stream; any approximately horizontal surface still actively modified by fluvial scour and/or deposition. May occur individually or as a series of steps.

Fluvial. Of or pertaining to rivers or streams; produced by stream or river action.

Footslope. The concave surface at the base of a hillslope. 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 habitat type. An association of dominant tree and ground flora species in a climax community.

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.

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.

Glaciofluvial deposits. Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and occur in the form of outwash plains, valley trains, deltas, kames, eskers, and kame terraces.

Glaciolacustrine deposits. Material ranging from fine clay to sand derived from glaciers and deposited in glacial lakes mainly by glacial meltwater. Many deposits are bedded 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.

Gravel pit (map symbol). An open excavation from which soil and underlying material have been removed and used, without crushing, as a source of sand or gravel. Typically less than 4 acres.

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.

Gravelly spot (map symbol). An area where the surface layer has more than 35 percent, by volume, rock fragments that are mostly less than 3 inches in diameter within an area that has less than 15 percent rock fragments. Typically less than 4 acres.

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 small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. 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 (geomorphology). 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.

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 generic term for an elevated area 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. Slopes are generally more than 15 percent. The distinction between a hill and a mountain is arbitrary and may depend on local usage.

Hillslope. A generic term for the steeper part of a hill between its summit and the drainage line, valley flat, or depression floor at the base of a hill.

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.

L horizon.—A layer of organic and mineral limnic materials, including coprogenous earth (sedimentary peat), diatomaceous earth, and marl.

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 that was formed by cooling and solidification of magma and that has not been changed appreciably by weathering since its formation. Major varieties include plutonic and volcanic rock (e.g., 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. A landform composed of the relatively undissected upland or ridge between two adjacent valleys containing streams flowing in the same general direction. An elevated area between two drainageways that sheds water to those drainageways.

Interfluve (geomorphology). A geomorphic component of hills consisting of the uppermost, comparatively level or gently sloping area of a hill; shoulders of backwearing hillslopes can narrow the upland or can merge, resulting in a strongly convex shape.

Intermittent stream. A stream, or reach of a stream, that does not flow year-round but that is commonly dry for 3 or more months out of 12 and whose channel is generally below the local water table. It flows only during wet periods or 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 depletions. See Redoximorphic features.

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.

Island (map symbol). A small area of mineral soil within a body of water and above the normal water level. Each symbol represents one island or several closely grouped islands totaling less than 4 acres.

Kame. A low mound, knob, hummock, or short irregular ridge composed of stratified sand and gravel deposited by a subglacial stream as a fan or delta at the margin of a melting glacier; by a supraglacial stream in a low place or hole on the surface of the glacier; or as a ponded deposit on the surface or at the margin of stagnant ice.

Karst (topography). A kind of topography that formed in limestone, gypsum, or other soluble rocks by dissolution and that is characterized by closed depressions, sinkholes, caves, and underground drainage.

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 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.

Landslide. A general, encompassing term for most types of mass movement landforms and processes involving the downslope transport and outward deposition of soil and rock materials caused by gravitational forces; the movement may or may not involve saturated materials. 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.

Levees, single side slope (map symbol). Embankments for confining or controlling water. Typically constructed along the banks of a river to prevent overflow onto lowlands.

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. Material transported and deposited by wind and consisting dominantly of silt-sized particles.

Low strength. The soil is not strong enough to support loads.

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 proportions; formed primarily under freshwater lacustrine conditions but also formed in more saline environments.

Mass movement. A generic term for the dislodgment and downslope transport of soil and rock material as a unit under direct gravitational stress.

Masses. See Redoximorphic features.

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 at depth in the earth's crust. Nearly all such rocks are crystalline.

Mine spoil. An accumulation of displaced earthy material, rock, or other waste material removed during mining or excavation. Also called earthy fill.

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. A kind of map unit 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. In terms of glacial geology, a mound, ridge, or other topographically distinct accumulation of unsorted, unstratified drift, predominantly till, deposited primarily by the direct action of glacial ice in a variety of landforms. Also, a general term for a landform composed mainly of till (except for kame moraines, which are composed mainly of stratified outwash) that has been deposited by a glacier. Some types of moraines are disintegration, end, ground, kame, lateral, recessional, and terminal.

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.)

Mudstone. A blocky or massive, fine grained sedimentary rock in which the proportions of clay and silt are approximately equal. Also, a general term for such material as clay, silt, claystone, siltstone, shale, and argillite and that should be used only when the amounts of clay and silt are not known or cannot be precisely identified.

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. See Redoximorphic features.

Nose slope (geomorphology). A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is

predominantly divergent. Nose slopes consist dominantly of colluvium and slope-wash sediments (for example, slope alluvium).

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. Stratified and sorted sediments (chiefly sand and gravel) removed or "washed out" from a glacier by meltwater streams and deposited in front of or beyond the end moraine or the margin of a glacier. The coarser material is deposited nearer to the ice.

Outwash plain. An extensive lowland area of coarse textured glaciofluvial material. An outwash plain is commonly smooth; where pitted, it generally is low in relief.

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 layer of sediment, eroded from the shoulder and backslope of an erosional slope, that lies on and is being (or was) transported across a gently sloping erosional surface at the foot of a receding hill or mountain slope.

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.

Perennial water (map symbol). A small, natural or constructed lake, pond, or pit that contains water most of the year. Each symbol represents one area of water or several closely grouped areas of water totaling less than 4 acres.

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 (geomorphology). A comparatively flat area of great extent and elevation; specifically, an extensive land region that is considerably elevated (more than 100 meters) above the adjacent lower lying terrain, is commonly limited on at least one side by an abrupt descent, and has a flat or nearly level surface. A comparatively large part of a plateau surface is near summit level.
Plowpan. A compacted layer formed in the soil directly below the plowed layer.
Poletimber. Hardwood trees ranging from 5 to 11 inches in diameter and conifers ranging from 5 to 9 inches in diameter at breast height.
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.
Pore linings. See Redoximorphic features.
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.
Rangeland. Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.
Reaction, soil. A measure of acidity or alkalinity of a soil, expressed as 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. See Redoximorphic features.

Redoximorphic depletions. See Redoximorphic features.

Redoximorphic features. Redoximorphic features are associated with wetness and result from alternating periods of reduction and oxidation of iron and manganese compounds in the soil. Reduction occurs during saturation with water, and oxidation occurs when the soil is not saturated. Characteristic color patterns are created by these processes. The reduced iron and manganese ions may be removed from a soil if vertical or lateral fluxes of water occur, in which case there is no iron or manganese precipitation in that soil. Wherever the iron and manganese are oxidized and precipitated, they form either soft masses or hard concretions or nodules. Movement of iron and manganese as a result of redoximorphic processes in a soil may result in redoximorphic features that are defined as follows:

1. Redoximorphic concentrations.—These are zones of apparent accumulation of iron-manganese oxides, including:
   A. Nodules and concretions, which are cemented bodies that can be removed from the soil intact. Concretions are distinguished from nodules on the basis of internal organization. A concretion typically has concentric layers that are visible to the naked eye. Nodules do not have visible organized internal structure; *and*
   B. Masses, which are noncemented concentrations of substances within the soil matrix; *and*
   C. Pore linings, i.e., zones of accumulation along pores that may be either coatings on pore surfaces or impregnations from the matrix adjacent to the pores.
2. Redoximorphic depletions.—These are zones of low chroma (chromas less than those in the matrix) where either iron-manganese oxides alone or both iron-manganese oxides and clay have been stripped out, including:
   A. Iron depletions, i.e., zones that contain low amounts of iron and manganese oxides but have a clay content similar to that of the adjacent matrix; *and*
   B. Clay depletions, i.e., zones that contain low amounts of iron, manganese, and clay (often referred to as silt coatings or skeletans).
3. Reduced matrix.—This is a soil matrix that has low chroma *in situ* but undergoes a change in hue or chroma within 30 minutes after the soil material has been exposed to air.

Reduced matrix. See Redoximorphic features.

Regolith. All unconsolidated earth materials above the solid bedrock. It includes material weathered in place from all kinds of bedrock and alluvial, glacial, eolian, lacustrine, and pyroclastic deposits.

Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as bedrock disintegrated in place.

Rill. A very small, steep-sided channel resulting from erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. A rill generally is not an obstacle to wheeled vehicles and is shallow enough to be smoothed over by ordinary tillage.

Riser. The vertical or steep side slope (e.g., escarpment) of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural, steplike landforms, such as successive stream terraces.

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.

Rock outcrop (map symbol). An exposure of bedrock at the surface of the earth. Not used where the named soils of the surrounding map unit are shallow over bedrock. Each symbol represents one exposure or several closely grouped exposures totaling less than 4 acres.

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.

Sandy spot (map symbol). An area where the surface layer is loamy fine sand or coarser within an area where the surface layer of the named soils in the surrounding map unit is very fine sandy loam or finer. Typically less than 4 acres.

Sanitary landfill (map symbol). A small area of accumulated waste products of human habitation. The area can be above or below natural ground level. Typically less than 4 acres.

Sapling. A tree ranging from 1 to 5 inches in diameter at breast height.

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.

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.

Sawtimber. Hardwood trees more than 11 inches in diameter and conifers more than 9 inches in diameter at breast height.

Scarification. The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.

Sedimentary rock. A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal

low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.

Seedling. A tree less than 1 inch in diameter at breast height.

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 that formed by the hardening of a deposit of clay, silty clay, or silty clay loam and that has a tendency to split into thin layers.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Short, steep slope (map symbol). A narrow area of soil that is at least two slope classes steeper than the surrounding map unit.

Shoulder. The convex, erosional surface near the top of a hillslope. A shoulder is a transition from summit to backslope.

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 (geomorphology). A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel. Side slopes are dominantly colluvium and slope-wash sediments.

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. An indurated silt having the texture and composition of shale but lacking its fine lamination or fissility; a massive mudstone in which silt predominates over clay.

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 closed, circular or elliptical depression, commonly funnel shaped, characterized by subsurface drainage and formed either by dissolution of the surface of underlying bedrock (e.g., limestone, gypsum, or salt) or by collapse of underlying caves within bedrock. Complexes of sinkholes in carbonate-rock terrain are the main components of karst topography.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

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.

Slope alluvium. Sediment gradually transported down the slopes of mountains or hills primarily by nonchannel alluvial processes (i.e., slope-wash processes) and characterized by particle sorting. Lateral particle sorting is evident on long slopes. In a profile sequence, sediments may be distinguished by differences in size and/or specific gravity of rock fragments and may be separated by stone lines.

Burnished peds and sorting of rounded or subrounded pebbles or cobbles distinguish these materials from unsorted colluvial deposits.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

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.

Stone line. In a vertical cross section, a line formed by scattered fragments or a discrete layer of angular and subangular rock fragments (commonly a gravel- or cobble-sized lag concentration) that formerly was draped across a topographic surface and was later buried by additional sediments. A stone line generally caps material that was subject to weathering, soil formation, and erosion before burial. Many stone lines seem to be buried erosion pavements, originally formed by sheet and rill erosion across the land surface.

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.

Strath terrace. A type of stream terrace; formed as an erosional surface cut on bedrock and thinly mantled with stream deposits (alluvium).

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream; represents the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition.

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.

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 a hardpan or claypan.

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. An end moraine that marks the farthest advance of a glacier. It typically has the form of a massive arcuate or concentric ridge, or complex of ridges, and is underlain by till and other types of drift.

Terrace (conservation). 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 (geomorphology). A steplike surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, lake, or seashore. The term is usually applied both to the relatively flat summit surface (tread) that was cut or built by stream or wave action and to the steeper descending slope (scarp or riser) that has graded to a lower base level of erosion.

Terracettes. Small, irregular steplike forms on steep hillslopes, especially in pasture, formed by creep or erosion of surficial materials that may be induced or enhanced by trampling of livestock, such as sheep or cattle.

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. Dominantly unsorted and nonstratified drift, generally unconsolidated and deposited directly by a glacier without subsequent reworking by meltwater, and consisting of a heterogeneous mixture of clay, silt, sand, gravel, stones, and boulders; rock fragments of various lithologies are embedded within a finer matrix that can range from clay to sandy loam.

Till plain. An extensive area of level to gently undulating soils underlain predominantly by till and bounded at the distal end by subordinate recessional or end moraines.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. 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.

Tread. The flat to gently sloping, topmost, laterally extensive slope of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural steplike landforms, such as successive stream terraces.

Upland. An informal, general term for the higher ground of a region, in contrast with a low-lying adjacent area, such as a valley or plain, or for land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.

Valley fill. The unconsolidated sediment deposited by any agent (water, wind, ice, or mass wasting) so as to fill or partly fill a valley.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Varve. A sedimentary layer or a lamina or sequence of laminae deposited in a body of still water within a year. Specifically, a thin pair of graded glaciolacustrine layers seasonally deposited, usually by meltwater streams, in a glacial lake or other body of still water in front of a glacier.

Very stony spot (map symbol). An area in which 0.1 to 3.0 percent of the surface is covered by rock fragments more than 10 inches in diameter within an area that does not have rock fragments on the surface. Typically less than 4 acres.

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 disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth's surface by atmospheric or biologic agents or by circulating surface waters but involving essentially no transport of the altered 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.

Wet spot (map symbol). An area of somewhat poorly drained to very poorly drained soil at least two drainage classes wetter than the named soils in the surrounding map unit. Each symbol represents one wet area or several grouped wet areas totaling less than 4 acres.

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.

Where To Get Updated Information

The soil properties and interpretations included in this survey were current as of October 2005. More current information may be available from the Natural Resources Conservation Service (NRCS) Field Office Technical Guide at Spooner, Wisconsin, or online at www.nrcs.usda.gov/technical/efotg. The data in the Field Office Technical Guide are updated periodically.

More current information may also be available through the NRCS Soil Data Mart Web site at http://soildatamart.nrcs.usda.gov or the Web Soil Survey at http://websoilsurvey.nrcs.usda.gov/app.

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

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