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In cooperation with
United States Department
of Agriculture, Forest
Service, and the Research
Division of the College of
Agricultural and Life
Sciences, University of
Wisconsin

Soil Survey of Taylor County, Wisconsin



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How To Use This Soil Survey

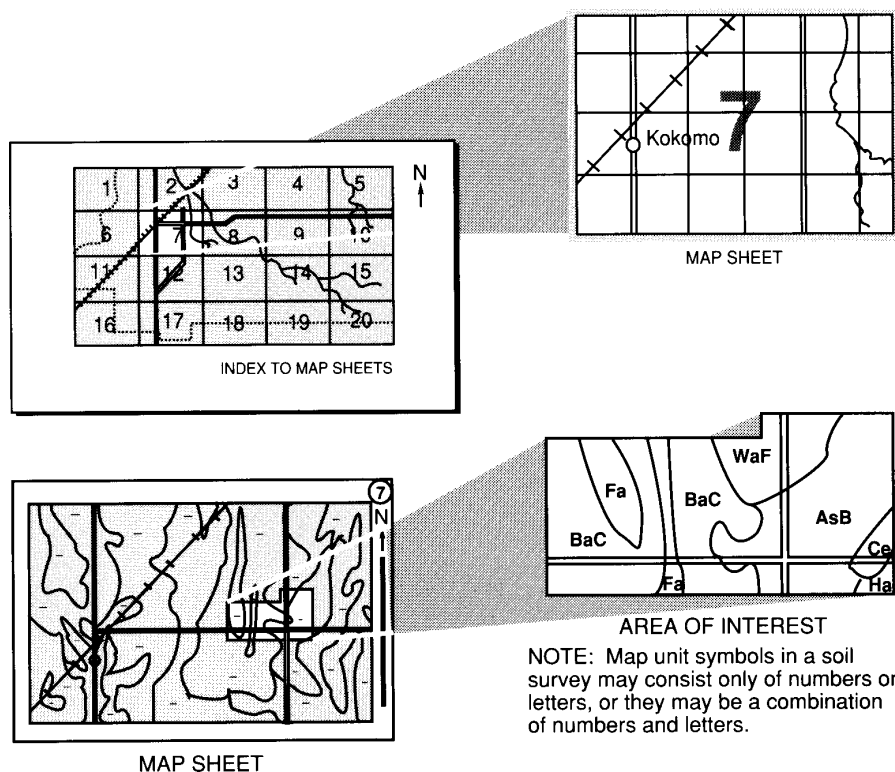
Soil Maps

The soil maps 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 soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



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

Major fieldwork for this soil survey was completed in 1998. Soil names and descriptions were approved in 2000. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2000. This survey was made cooperatively by the United States Department of Agriculture, Natural Resources Conservation Service and Forest Service, and by 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 Taylor County Soil and Water Conservation District. The Taylor County Land Conservation Committee provided financial assistance.

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Cover: Little Chelsea Lake is one of the many scenic lakes within the Perkinstown end moraine in Taylor County.

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

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Foreword

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

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

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

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

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

Patricia S. Leavenworth
State Conservationist
Natural Resources Conservation Service

Where To Get Updated Information

The soil properties and interpretations included in this survey were current as of January 2004. More current information may be available from the Natural Resources Conservation Service (NRCS) Field Office Technical Guide at Medford, 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 Website at <http://soildatamart.nrcs.usda.gov/>

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

For further information, please contact:

USDA, Natural Resources Conservation Service
Medford Service Center
925 Donald Street, Room 101
Medford, WI 54451-2099
Phone: 715-748-4121

Soil Survey of Taylor County, Wisconsin

By Joseph M. Boelter, Stacy S. Eichner, Angela M. Elg, William D. Fiala, and Richard M. Johannes, Natural Resources Conservation Service

Fieldwork by Joseph M. Boelter, John E. Campbell, Roger A. Dahl, Stacy S. Eichner, Angela M. Elg, William D. Fiala, Ulf B. Gafvert, Sam D. Hagedorn, Dale E. Jakel, Richard M. Johannes, John L. Langton, Kenneth W. Lubich, Tim J. Miland, Augustine J. Otter, and Robert D. Weihrouch, Natural Resources Conservation Service, and Leonard S. Kempf and Gregory A. Knight, Forest Service

United States Department of Agriculture, Natural Resources Conservation Service and Forest Service,
in cooperation with the Research Division of the College of Agricultural and Life Sciences, University of Wisconsin

TAYLOR COUNTY is in north-central Wisconsin (fig. 1). It is bounded on the north by Price and Rusk Counties, on the east by Lincoln and Marathon Counties, on the south by Marathon and Clark Counties, and on the west by Chippewa and Rusk Counties. Taylor County has a total area of 628,538 acres.

In 1990, the population of the county was 18,901. Medford, the county seat, had a population of 4,283.

The majority of privately owned land in Taylor County is used as farmland. Agriculture, lumbering, manufacturing, recreation, and tourism also are part of the Taylor County economy.

General Nature of the Survey Area

This section provides some general information about the survey area. It describes history and development; climate; physiography, relief, and drainage; geology and underlying material; water supply; transportation facilities and industry; forestry; and farming.

History and Development

The original inhabitants of the survey area were woodland Native Americans, dominantly the Chippewa tribe (Mravik, 1997). Little is known about the history of the area during the period when Wisconsin was

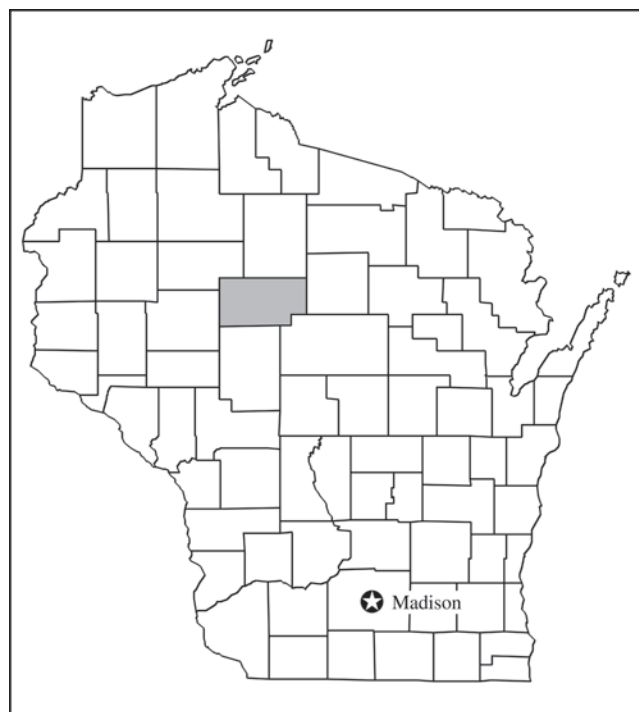


Figure 1.—Location of Taylor County in Wisconsin.

controlled by the English and French. There is no known record of any exploration in this area, which lies between the Chippewa and Wisconsin Rivers,

because there were no large streams within its borders connecting it to either river (Hafs and others, 1981).

Taylor County was created from parts of Lincoln, Clark, Marathon, and Chippewa Counties. It was established as a result of an act by the State Legislature in 1875. The origin of the name is uncertain. One assumption is that the name was in honor of the Governor of Wisconsin, William R. Taylor. Another is that the county was named for David Taylor, a prominent jurist at that time and later a State Supreme Court Justice (Taylor County, Wisconsin, 1994).

The timber industry was the first industry to be established in Taylor County. The main species of timber harvested during the early logging years was the valuable eastern white pine. Medford was the first organized town in the county, but as the timber industry grew, other towns were created wherever there was a sawmill (Rusch, 1996). The first railroad arrived in Taylor County in 1873. After 60 years of logging, the timber resource became depleted and the settlers turned to farming. As more land was cleared, there was an increase in the number of homesteads.

In the 1880s and 1890s, the Native American population increased as tribal members came from the west (primarily Kansas) to gather cranberries and blueberries, to hunt, and to make maple sugar in the Perkinstown area. In 1990, an epidemic of smallpox reduced the Native American population by half. Many of the remaining Native Americans have since left the area.

Climate

Table 1 gives data on temperature and precipitation for the survey area as recorded at Medford in the period 1971 to 2000. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on the length of the growing season.

In winter, the average temperature is 13.8 degrees F and the average daily minimum temperature is 4.1 degrees. The lowest temperature on record, which occurred at Medford on March 1, 1962, is -40 degrees. In summer, the average temperature is 65.6 degrees and the average daily maximum temperature is 76.6 degrees. The highest temperature, which occurred at Medford on July 14, 1995, is 95 degrees.

Growing degree days are shown in table 1. 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 33.27 inches. Of this, 20.8 inches, or about 63 percent, usually falls in May through September. The growing season for most crops falls within this period. The heaviest 1-day rainfall on record was 4.77 inches at Medford on July 8, 1959. Thunderstorms occur on about 37 days each year, and most occur in July.

The average seasonal snowfall is 37.9 inches. The greatest snow depth at any one time during the period of record was 48 inches recorded on March 9, 1972. On an average, 110 days per year have at least 1 inch of snow on the ground. The heaviest 1-day snowfall on record was 12 inches recorded on February 5, 1971.

The average relative humidity in midafternoon is about 59 percent. Humidity is higher at night, and the average at dawn is about 78 percent. The sun shines 69 percent of the time possible in summer and 51 percent in winter. The prevailing wind is from the northwest. Average windspeed is highest, 12.3 miles per hour, in April.

Physiography, Relief, and Drainage

Taylor County is in the Northern Highlands physiographic region of Wisconsin. The highest elevation in the county, 1,805 feet above sea level, is on a hill bordering the north side of James Lake in the northeastern part of the county. The lowest elevation, 1,104 feet above sea level, is in the northwestern part of the county at a point where the Jump River leaves the county.

The physiography, relief, and drainage of Taylor County are primarily the result of glaciation. Thick glacial deposits in most areas overlie Precambrian and Cambrian rock, although rock outcrops also occur along parts of the Jump River and the Yellow River. The rest of the county is covered by drift from various glacial advances.

The most prominent physiographic feature is an end moraine, locally named the Perkinstown end moraine, which extends from the northeast corner of the county to the southwest corner. The highest elevations and roughest terrain are within the end moraine. The landscape has high relief and features wetlands, lakes, and preserved glacial landforms.

The Perkinstown Moraine separates the northeastern and southwestern parts of the county. In the southeastern part of Taylor County, the terrain has very low relief. This area was glaciated at an earlier

time, and erosion has since destroyed the glacial landforms. As a result, the landscape is gently rolling and has very few surface stones.

The northwestern part of the county was covered by ice during the last part of the glaciation. Because erosion has not greatly modified the area, the glacial landscapes have been preserved. This area probably closely resembles the shape of the bed of the Chippewa Lobe (Attig, 1993). The landscape is of low relief and gently rolling. Small hilly areas and small eskers occur in places.

Taylor County is drained by three main drainage systems. The Wisconsin River system, which includes the Big Rib River and its tributaries, drains the eastern part of the county. The western part of the county is drained by the Chippewa River system. The major waterways in this drainage system in Taylor County include the Jump River, the Yellow River, the Mondeaux River, the North Fork of the Eau Claire River, and the Fisher River and its tributaries. The Black River and its tributaries drain the rest of the county.

Geology and Underlying Material

The landscape of Taylor County and the distribution and character of the geologic material that overlies Precambrian rock are a direct result of glaciation. During the last part of the Wisconsin Glaciation, between about 25,000 and 15,000 years ago, the Laurentide Ice Sheet reached its maximum extent in north-central Wisconsin. At that time the glacier covered northern and western Taylor County (Attig, 1993). The remainder of the county had been glaciated several times earlier, during the Pleistocene Epoch. The timing of these earlier glaciations in north-central Wisconsin is not well understood. It is possible that some may have occurred as early as late in the Pliocene Epoch.

Taylor County is underlain predominantly by Early Proterozoic metavolcanic rock that is part of the Penokean volcanic belt. The metavolcanic rock is intruded by granitic rock in the southeastern, northeastern, and northwestern parts of the county. Outliers of Cambrian sandstone occur in places. Pre-Pleistocene rock occurs at the surface only in a few places in the county, but outcrops are common along parts of the Jump River and the Yellow River. No sedimentary record is known for events between the deposition of the Cambrian sandstone and the Pleistocene glaciations in Taylor County.

The various glacial landforms and deposits in Taylor County can be divided into distinct zones. Each zone

contains material and features that record a geologic history different from that in the other zones.

The Edgar till plain in southeastern Taylor County contains till of the Medford and Edgar Members of the Marathon Formation. Till of the Edgar Member occurs at or near the surface throughout most of the area. In places, the Medford Member occurs in the subsurface. In southeastern Taylor County, the Marathon Formation is typically less than 15 meters thick.

The Merrill till plain contains till of the Merrill Member of the Lincoln Formation. Till of the Merrill Member is the surface till in a broad band across south-central and east-central Taylor County. Merrill till overlies Edgar and Medford till of the Marathon Formation.

The marginal zone of the Chippewa and Wisconsin Valley Lobes includes the thickest Pleistocene sediment in Taylor County. This zone extends from the southwest corner of the county to the northeast corner and is characterized by a high-relief landscape with well preserved glacial landforms, lakes, and wetlands. Some of the features in this zone include ice-marginal ridges, hilly topography, and ice-walled lake plains. An area of tunnel channels and eskers at the Mondeaux Flowage is associated with melting water cutting through a marginal zone where the glacier was frozen to its bed. The deposition of the eskers was likely during the last phase of drainage through the tunnel to the ice margin.

The Black River Lobe in the central part of Taylor County near Whittlesey is an area of well preserved glacial landforms that extends beyond the moraine ridge and outwash plain formed along the margin of the late Wisconsin Chippewa Lobe. The most conspicuous glacial landforms preserved in the area are ice-walled plains. The margins of the Black River Lobe form part of the drainage divide around the upper part of the Black River. The Black River Lobe was most likely a small offshoot of the Chippewa Lobe that reached its maximum position slightly before the Chippewa Lobe margin stabilized to the northwest.

North of the marginal zone of the Chippewa Lobe lies the till plain of the Chippewa Lobe, which is underlain by uniform till of the Copper Falls Formation. The landscape is a low-relief, gently rolling till plain. Small areas of hilly topography occur in places, and small eskers also occur. Copper Falls till is typically less than 10 meters thick and overlies meltwater-stream sediment or older glacial material in many areas. The loess cover is typically less than 0.5 meter thick. Erosion has probably not greatly modified the late glacial landscape, except along large, late- or post-glacial drainageways.

A streamlined zone of the Chippewa Lobe is in northwestern Taylor County. The orientation of hills and intervening wetlands characterizes a landscape that has a strong northeast-southwest grain and that extends northward into Price and Rusk Counties. The till is of the Copper Falls Formation and is similar to the till that occurs throughout western Taylor County. Till of the Lincoln or Marathon Formation occurs in places beneath till of the Copper Falls Formation. The origin of the topography in this area is unclear, but it is possible that the elongate hills and wetlands in northwestern Taylor County are a reflection of the structurally controlled topography of the Precambrian rock surface.

Water Supply

Taylor County has many streams, lakes, and rivers that furnish about 7,364 acres of surface water. Of this total, about 6,116 acres is the surface water of 283 lakes and impoundments. There are 67 named streams and rivers that account for about 494 miles and 1,248 surface acres of water in Taylor County (Haanpaa and others, 1970).

Of the 283 lakes in the county, 250, or 88 percent, are natural but account for only 36 percent of the total lake acreage; 33 lakes, or about 12 percent, are impounded waters and account for 64 percent of the lake surface area. Most of the lakes are small; 217, or about 77 percent, are less than 10 acres. Lakes in this size class make up only 9 percent of the surface area of lakes. Only four lakes (less than 1 percent) are 100 acres or larger, and these lakes account for 59 percent of the surface lake acreage. The largest lake is known as Chequamegon Waters, an impoundment of 2,730 acres. This lake contains 45 percent of the surface area of lakes in the county.

Maximum lake depths range considerably from shallow pondlike lakes to the deeper bog lakes. The three deepest lakes in Taylor County are North Twin Lake and Spruce Lake (each with a maximum depth of 60 feet) and Lake Thirty-Three (which has a maximum depth of 61 feet).

In Taylor County, surface water is used mainly for recreation, watering stock, and wildlife. The village of Rib Lake at one time used water from the Big Rib River for municipal supplies, but the community now relies on two ground-water wells to meet its water needs.

Ground-water resources supply most water needs in the county. Ground water is generally available in sufficient quantities to meet domestic, agricultural, municipal, and industrial needs.

The depth to ground water below the soil surface

depends on the general topography, elevation above the permanent stream level, and the lithology of the underlying bedrock and glacial deposits. Water is stored in porous and permeable strata called aquifers. The quantity of water that can be tapped from an aquifer depends on its thickness and extent, the rate of water movement through it, the recharge rate to the aquifer, and the storage capacity of the aquifer.

The availability of ground water varies locally. Onsite investigation is needed when water developments are planned.

The saturated sand and gravel aquifers associated with outwash plains yield the largest quantities of water. Yields are generally up to 200 gallons per minute. In Taylor County, most of the ground water is obtained from sand and gravel deposits in or under the till of ground moraines or from sand and gravel deposits in areas of end moraine. These yields are typically less than 50 gallons per minute, but local wells may yield 100 to 200 gallons per minute (Young and Borman, 1973). The Precambrian rock underlying the county is not considered a significant source of water. The availability of water from the bedrock is difficult to predict but is probably less than 5 gallons per minute.

The quality of the ground water in Taylor County is basically good. Regional differences are a result of the composition, solubility, and surface area of the particles of soil and rock through which the water moves and of the length of time the water is in contact with these materials. Local problems with ground water include hardness, high concentrations of iron, and dissolved solids (Devaul and Green, 1971).

Transportation Facilities and Industry

Taylor County is served by 6 State highways and 17 county roads. The major north-south highways are State Highway 13 in the eastern part of the county and State Highway 73 in the western part. The major east-west highway is State Highway 64, which crosses southern Taylor County. State Highway 102 serves the Rib Lake area in the northeastern part of the county. The county road system completes a secondary road network connecting local communities to Medford, the county seat. The county has rail service, and an airport southeast of Medford serves small aircraft.

Most of the industry in Taylor County is related to manufacturing forest products. Forest products produced locally include windows, window grids, molding, plywood, cabinets, and specialty wood products. The county has a number of agriculture-related industries. There are several cheese processors and a pizza manufacturer. Other local

industries produce plastic and metal components. Construction and trucking complement the manufacturing industry.

The many lakes and streams and the surrounding forested areas provide year-round opportunities for recreation and tourism. A wide variety of outdoor activities, such as fishing, hunting, boating, water-skiing, swimming, camping, hiking, bicycling, horseback riding, ATV riding, snowmobiling, and downhill and cross-country skiing are enjoyed by visitors and vacationers (Albrecht, 1997).

Forestry

Most of Taylor County was forested prior to settlement. The forests were a mixture of eastern white pine, northern hardwoods, hemlock, lowland hardwoods, and swamp conifers. Lumbering in Taylor County began with the depletion of the eastern white pine stock in neighboring Clark County and the construction of the railroad in Taylor County in 1873 (Latton and others, 1974). Logging companies, chiefly from La Crosse, sent their crews from Clark County farther up the Black River Valley to cut eastern white pine in Taylor County and float the logs down to their mills to be sawed. Other companies sent their crews up the Yellow, Rib, and Jump River Valleys (Hafs and others, 1981).

From the 1870s to the early 1900s, the railroads expanded their routes in Taylor County. The towns of Medford, Chelsea, Westboro, Rib Lake, Jump River, Gilman, and Hannibal were established as sawmills were built to process the pine. As the supply of eastern white pine declined in the 1880s, loggers turned their attention to hemlock. Hemlock bark was used to make tannin, and tanneries were established at Perkinstown, Rib Lake, and Medford (Latton, 1975).

Lumbering has remained a major enterprise in Taylor County. In 1996, 126 harvesters were harvesting timber and 2 sawmills were operating. About 5,635,000 cords of growing stock, including 963,007,000 board feet of sawtimber, was removed from the forest. This harvest was about 45 percent of the net annual growth of growing stock. Hardwoods, mostly aspen and maple, made up about 76 percent of the harvest (Schmidt, 1996).

Growing Christmas trees is an important enterprise for many landowners in Taylor County (fig. 2). Several thousand acres of land is used for the trees, mostly balsam fir, white spruce, Scotch pine, and eastern white pine. Conifer boughs, mostly balsam fir, are harvested by private individuals from native stands for the use of Christmas trimmings and are sold locally.

Most of the trees are transported to southern markets, but many are sold locally.

The collection of sugar maple sap and the production of maple syrup also are important forestry enterprises (fig. 3). The sap is refined into maple syrup or sold to major refineries in the area. Because the county has large acreages of sugar maple, there is a potential for increased production of maple syrup. Tapping these trees for sap, however, lowers the quality of veneer sawlogs because of staining near the boreholes.

Some timber harvesters cut hardwood pole timber for firewood. The firewood market fluctuates, however, depending on the costs of other types of fuel.

Farming

Farming began in Taylor County in conjunction with lumbering. Feed and produce were grown in clearings that were established in areas close to the logging camps. Most farmers worked in logging camps or sawmills in the winter and enlarged and cultivated their cropland in the summer. They used their winter earnings to improve their farms (Hafs and others, 1981).

There were only 266 farms in Taylor County in 1880. The major crops produced were hay and oats, but some corn, barley, potatoes, wheat, and rye also were grown. Most early farmers kept small herds of cows for milk, which was also converted to butter. Dairying started with the sale of surplus milk, cream, and butter. It increased rapidly after the cheese industry was developed in the early 1900s (Latton and others, 1974).

The number of farms peaked at about 3,300 in the early 1940s and has declined since then (Taylor County, Wisconsin, 1994). There were 2,865 farms in 1950 and only 1,570 farms in 1975 (Taylor County Soil and Water Conservation District, 1977). By 1995, the number of farms had declined to 1,090 (Albrecht, 1997).

Dairying is still the main farming enterprise in the county. The trend is toward fewer dairy farms, larger herds, and more efficient husbandry. Although there has been a decline in the total number of milk cows in recent years, the average per cow increase in productivity has nearly offset this decline. The milk is marketed mostly as cheese.

Some farming enterprises produce beef cattle, hogs, chicken, sheep, buffalo, emu, and pheasants. Special products produced by some enterprises include ginseng, honey from bees, maple syrup, Christmas trees, and fur from mink.



Figure 2.—Sheared conifers in an area of Freeon, very stony-Freeon complex, ground moraine, 1 to 6 percent slopes.

How This Survey Was Made

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

The soils and miscellaneous areas in the survey

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

Individual soils on the landscape commonly merge into one another as their characteristics gradually change. To construct an accurate map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations,

supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They 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 the zone of wet soil moisture status will always be at a specific level in the soil on a specific date.



Figure 3.—Collection of sugar maple sap in an area of Comstock-Magnor, very stony-Ossmer complex, 0 to 3 percent slopes.

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

The Medford Ranger District of the Chequamegon National Forest is within Taylor County. The land in this area was mapped by Forest Service staff and by a private contractor hired by the Forest Service. Map units were defined at the Ecological Land Type (ELT) level. The Natural Resources Conservation Service progressively correlated these ELT map units to consociations, complexes, and undifferentiated groups of soil series recognized by the National Cooperative Soil Survey. The final correlation of the Taylor County survey incorporated the correlated map units from the final field correlation of the Chequamegon National Forest, Medford Ranger District, as revised in February 1996.

The descriptions, names, and delineations of the

soils in this survey area do not fully agree with those of the soils in adjacent survey areas. Differences are the result of a better knowledge of soils, modifications

in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

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 26, 27, and 28 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 24 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, Crystal Lake silt loam, 2 to 6 percent slopes, is a phase of the Crystal Lake 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. Almena silt loam, 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. Newwood, very stony-Pesabic, very stony-Cathro complex, 0 to 15 percent slopes, is an example (fig. 4).

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. Loxley and Beseman soils, 0 to 1 percent slopes, is an undifferentiated group in this survey area (fig. 5).

This survey includes miscellaneous areas. Such areas have little or no soil material and support little or no vegetation. The map unit Pits is an example.

Table 4 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.



Figure 4.—An area of Newwood, very stony-Pesabic, very stony-Cathro complex, 0 to 15 percent slopes, used as pastureland. The Newwood soil is in the hilly area in the background. The cattails in the center are in an area of Cathro muck. The Pesabic soil is in the foreground.



Figure 5.—An area of Loxley and Beseman soils, 0 to 1 percent slopes. The typical vegetation in areas of these soils is leatherleaf, sphagnum moss, and stunted black spruce and tamarack.

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

Component Description

Comstock and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic component: Lake plains and 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: Silty lacustrine deposits

Flooding: None

Shallowest depth to wet zone: 0.5 foot (April)

Deepest depth to wet zone: 5 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

Dissimilar Components

Barronett soils: 0 to 10 percent of the unit
 Crystal Lake soils: 0 to 10 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

24A—Poskin silt loam, 0 to 3 percent slopes

Component Description

Poskin and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic component: Outwash plains and 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 stratified sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4 feet (February, August)
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; silt loam
 E—9 to 12 inches; silt loam
 E/B—12 to 19 inches; silt loam
 Bt1—19 to 36 inches; silt loam
 2Bt2—36 to 39 inches; sandy loam
 3C—39 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Brander soils: 0 to 10 percent of the unit
 Brill soils: 0 to 10 percent of the unit
 Rib soils: 0 to 10 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

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

Component Description

Antigo and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic component: Outwash plains, stream terraces, and outwash terraces
Position on the landform: Summits
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

Dissimilar Components

Brill soils: 0 to 10 percent of the unit
 Sconsin soils: 0 to 10 percent of the unit
 Rosholt soils: 0 to 5 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

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

Component Description

Antigo and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic component: Outwash plains, stream terraces, and outwash terraces
Position on the landform: Backslopes and shoulders
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

Dissimilar Components

Padus soils: 0 to 10 percent of the unit
 Rosholt soils: 0 to 10 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

43D—Antigo silt loam, 15 to 30 percent slopes

Component Description

Antigo and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic component: Stream terraces, outwash plains, and outwash terraces
Position on the landform: Backslopes and shoulders
Slope range: 15 to 30 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

Dissimilar Components

Padus soils: 0 to 10 percent of the unit
 Rosholt soils: 0 to 10 percent of the unit

Major Uses

- Forest land, hayland, pasture

48B—Brill silt loam, 1 to 6 percent slopes

Component Description

Brill and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic component: Outwash plains and stream terraces
Slope range: 1 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Loess or silty alluvium over loamy alluvium underlain by sandy or 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, June, July, August, September, October, November, December)
Ponding: None
Available water capacity to a depth of 60 inches: 8 inches
Content of organic matter in the upper 10 inches: 2.3 percent
Typical profile:
 Ap—0 to 7 inches; silt loam
 E—7 to 11 inches; silt loam
 E/B—11 to 19 inches; silt loam
 Bt1—19 to 34 inches; silt loam
 2Bt2—34 to 38 inches; loam
 3C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Brander soils: 0 to 15 percent of the unit
 Antigo soils: 0 to 10 percent of the unit
 Poskin soils: 0 to 10 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

57B—Spencer silt loam, 1 to 6 percent slopes***Component Description*****Spencer and similar soils**

Extent: 70 to 100 percent of the unit
Geomorphic component: Ground moraines
Slope range: 1 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Loess or silty alluvium underlain by loamy till
Flooding: None
Shallowest depth to wet zone: 1 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: 10.6 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
 Ap—0 to 9 inches; silt loam
 E—9 to 12 inches; silt loam
 E/B—12 to 22 inches; silt loam
 B/E—22 to 30 inches; silt loam
 Bt1—30 to 42 inches; silt loam
 2Bt2—42 to 48 inches; loam
 2C—48 to 72 inches; sandy loam

Dissimilar Components

Almena soils: 0 to 15 percent of the unit
 Freeon soils: 0 to 15 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

59A—Almena silt loam, 0 to 3 percent slopes***Component Description*****Almena and similar soils**

Extent: 65 to 100 percent of the unit
Geomorphic component: Ground moraines
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 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: 11.1 inches
Content of organic matter in the upper 10 inches: 3.3 percent
Typical profile:
 Ap—0 to 9 inches; silt loam
 E/B—9 to 13 inches; silt loam
 B/E—13 to 21 inches; silt loam
 Bt—21 to 42 inches; silt loam
 2C—42 to 60 inches; sandy loam

Dissimilar Components

Auburndale soils: 0 to 15 percent of the unit
 Magnor soils: 0 to 15 percent of the unit
 Freeon soils: 0 to 5 percent of the unit
 Spencer soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

63B—Crystal Lake silt loam, 2 to 6 percent slopes***Component Description*****Crystal Lake and similar soils**

Extent: 85 to 100 percent of the unit
Geomorphic component: Kames, lake plains, and stream terraces
Position on the landform: Summits

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 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

Dissimilar Components

Aftad soils: 0 to 10 percent of the unit
 Comstock soils: 0 to 10 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

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

Component Description

Crystal Lake and similar soils

Extent: 90 to 100 percent of the unit
Geomorphic component: Kames, lake plains, and stream terraces
Position on the landform: Backslopes and shoulders
Slope range: 6 to 12 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Mostly silty lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2 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

Dissimilar Components

Aftad soils: 0 to 10 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

63D—Crystal Lake silt loam, 12 to 20 percent slopes

Component Description

Crystal Lake and similar soils

Extent: 90 to 100 percent of the unit
Geomorphic component: Kames, lake plains, and stream terraces
Position on the landform: Backslopes and shoulders
Slope range: 12 to 20 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: 2.5 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: 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

Dissimilar Components

Antigo soils: 0 to 10 percent of the unit

Major Uses

- Pasture, forest land

63E—Crystal Lake silt loam, 20 to 35 percent slopes**Component Description****Crystal Lake and similar soils**

Extent: 90 to 100 percent of the unit

Geomorphic component: Lake plains, kames, and stream terraces

Position on the landform: Backslopes and shoulders

Slope range: 20 to 35 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: 2.5 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: 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

Dissimilar Components

Antigo soils: 0 to 10 percent of the unit

Major Uses

- Forest land

77A—Auburndale silt loam, 0 to 2 percent slopes**Component Description****Auburndale and similar soils**

Extent: 60 to 100 percent of the unit

Geomorphic component: Depressions and drainageways on ground moraines

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: Loess or silty 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 (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: 11.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap—0 to 7 inches; silt loam

Eg—7 to 14 inches; silt loam

Btg1—14 to 41 inches; silt loam

2Btg2—41 to 53 inches; loam

2C—53 to 60 inches; sandy loam

Dissimilar Components

Cathro soils: 0 to 15 percent of the unit

Cebana soils: 0 to 15 percent of the unit

Almena soils: 0 to 10 percent of the unit

Auburndale soils that are subject to flooding for brief periods: 0 to 5 percent of the unit

Major Uses

- Forest land, wetland wildlife habitat

182B—Padus sandy loam, 0 to 6 percent slopes**Component Description****Padus and similar soils**

Extent: 75 to 100 percent of the unit

Geomorphic component: Outwash plains, stream terraces, and eskers

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: Well drained

Parent material: Loamy 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: 6 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A—0 to 2 inches; sandy loam

E—2 to 3 inches; sandy loam

Bs—3 to 19 inches; sandy loam

E/B—19 to 26 inches; sandy loam

B/E—26 to 38 inches; sandy loam

2C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Pence soils: 0 to 15 percent of the unit

Tipler soils: 0 to 10 percent of the unit

Major Uses

- Cropland, forest land, pasture, wildlife habitat

182C—Padus sandy loam, 6 to 15 percent slopes

Component Description

Padus and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic component: Eskers, outwash plains, and stream terraces

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: Loamy 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: 6 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A—0 to 2 inches; sandy loam

E—2 to 3 inches; sandy loam

Bs—3 to 19 inches; sandy loam

E/B—19 to 26 inches; sandy loam

B/E—26 to 38 inches; sandy loam

2C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Pence soils: 0 to 15 percent of the unit

Major Uses

- Cropland, forest land, pasture, wildlife habitat

182D—Padus sandy loam, 15 to 30 percent slopes

Component Description

Padus and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic component: Eskers, outwash plains, and stream terraces

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: Loamy 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: 6 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A—0 to 2 inches; sandy loam

E—2 to 3 inches; sandy loam

Bs—3 to 19 inches; sandy loam

E/B—19 to 26 inches; sandy loam

B/E—26 to 38 inches; sandy loam

2C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Pence soils: 0 to 15 percent of the unit

Pelissier soils: 0 to 10 percent of the unit

Major Uses

- Pasture, forest land, wildlife habitat

192A—Worcester sandy loam, 0 to 3 percent slopes

Component Description

Worcester and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic component: Stream terraces and outwash plains
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: Somewhat poorly drained
Parent material: Loamy alluvium underlain by sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4 feet (February, August)
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 2 inches; sandy loam
 E—2 to 3 inches; sandy loam
 Bhs—3 to 6 inches; sandy loam
 Bs—6 to 16 inches; sandy loam
 B/E—16 to 20 inches; sandy loam
 Bt1—20 to 32 inches; sandy loam
 2Bt2—32 to 39 inches; gravelly loamy sand
 2C—39 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Minocqua soils: 0 to 15 percent of the unit
 Tipler soils: 0 to 15 percent of the unit

Major Uses

- Cropland, forest land, pasture, wildlife habitat

193A—Minocqua muck, 0 to 2 percent slopes

Component Description

Minocqua and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic component: 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

Dissimilar Components

Cathro soils: 0 to 10 percent of the unit
 Oesterle soils: 0 to 10 percent of the unit
 Worcester soils: 0 to 10 percent of the unit
 Minocqua soils that are subject to flooding for brief periods: 0 to 5 percent of the unit

Major Uses

- Forest land, wetland wildlife habitat

215B—Pence sandy loam, 0 to 6 percent slopes

Component Description

Pence and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic component: Stream terraces and outwash plains
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: Mostly 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 inches

Content of organic matter in the upper 10 inches: 1.3 percent

Typical profile:

A—0 to 3 inches; sandy loam

E—3 to 8 inches; sandy loam

Bs—8 to 15 inches; gravelly sandy loam

2BC—15 to 21 inches; gravelly coarse sand

2C—21 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Padus soils: 0 to 15 percent of the unit

Manitowish soils: 0 to 10 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture, wildlife habitat

215C—Pence sandy loam, 6 to 15 percent slopes

Component Description

Pence and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic component: Stream terraces and outwash plains

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: Somewhat excessively drained

Parent material: Mostly 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 inches

Content of organic matter in the upper 10 inches: 1.3 percent

Typical profile:

A—0 to 3 inches; sandy loam

E—3 to 8 inches; sandy loam

Bs—8 to 15 inches; gravelly sandy loam

2BC—15 to 21 inches; gravelly coarse sand

2C—21 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Padus soils: 0 to 15 percent of the unit

Major Uses

- Cropland, forest land, pasture, wildlife habitat

215D—Pence sandy loam, 15 to 30 percent slopes

Component Description

Pence and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic component: Stream terraces and outwash plains

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: Somewhat excessively drained

Parent material: Mostly 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 inches

Content of organic matter in the upper 10 inches: 1.3 percent

Typical profile:

A—0 to 3 inches; sandy loam

E—3 to 8 inches; sandy loam

Bs—8 to 15 inches; gravelly sandy loam

2BC—15 to 21 inches; gravelly coarse sand

2C—21 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Padus soils: 0 to 15 percent of the unit

Pelissier soils: 0 to 10 percent of the unit

Major Uses

- Forest land, hayland, pasture, wildlife habitat

308B—Blackriver silt loam, 1 to 6 percent slopes

Component Description

Blackriver and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic component: Outwash plains and stream terraces

Slope range: 1 to 6 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material: 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, June, July, August, September, October, November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 10.7 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap—0 to 9 inches; silt loam

E/B—9 to 18 inches; silt loam

B/E—18 to 25 inches; silt loam

Bt1—25 to 48 inches; silt loam

2Bt2—48 to 52 inches; sandy loam

3C—52 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Ribriver soils: 0 to 15 percent of the unit

Maplehurst soils: 0 to 10 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

315A—Rib silt loam, 0 to 2 percent slopes

Component Description

Rib and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic component: Drainageways on stream terraces; drainageways and depressions on outwash 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: Loess or silty alluvium underlain by stratified 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: 8.3 inches

Content of organic matter in the upper 10 inches: 4.8 percent

Typical profile:

A—0 to 7 inches; silt loam

Eg—7 to 10 inches; silt loam

Btg1—10 to 32 inches; silt loam

2Btg2—32 to 35 inches; loam

3BC—35 to 37 inches; gravelly loamy sand

3C—37 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Cathro soils: 0 to 10 percent of the unit

Ossmer soils: 0 to 10 percent of the unit

Poskin soils: 0 to 10 percent of the unit

Rib soils that are subject to flooding for brief periods: 0 to 5 percent of the unit

Maplehurst soils: 0 to 5 percent of the unit

Major Uses

- Forest land, wetland wildlife habitat

324A—Maplehurst silt loam, 0 to 3 percent slopes

Component Description

Maplehurst and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic component: Outwash plains and stream terraces

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 feet (February, August)
Ponding: None
Available water capacity to a depth of 60 inches: 9.9 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
 Ap—0 to 9 inches; silt loam
 E/B—9 to 16 inches; silt loam
 B/E—16 to 25 inches; silt loam
 Bt1—25 to 44 inches; silt loam
 2Bt2—44 to 47 inches; sandy loam
 3C—47 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Ribriver soils: 0 to 15 percent of the unit
 Rib soils: 0 to 10 percent of the unit
 Blackriver soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

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

Component Description

Plover and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic component: Lake plains and 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: Mostly loamy lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 5 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

Dissimilar Components

Aftad soils: 0 to 10 percent of the unit
 Comstock soils: 0 to 5 percent of the unit
 Oesterle soils: 0 to 5 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

345B—Freeon, very stony-Sconsin complex, 2 to 6 percent slopes

Component Description

Freeon, very stony, and similar soils

Extent: 40 to 60 percent of the unit
Geomorphic component: Moraines
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 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: 9.4 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
 Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 5 inches; silt loam
 Bw—5 to 9 inches; silt loam
 E—9 to 13 inches; silt loam
 E/B—13 to 19 inches; silt loam
 2B/E—19 to 26 inches; sandy loam
 2Bt—26 to 38 inches; sandy loam
 2BCd—38 to 58 inches; sandy loam
 2Cd—58 to 60 inches; sandy loam

Sconsin and similar soils

Extent: 25 to 45 percent of the unit
Geomorphic component: Moraines
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: 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, 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
 2Bt—34 to 38 inches; sandy loam
 3C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Magnor soils that are very stony: 0 to 15 percent of the unit

Ossmer soils: 0 to 10 percent of the unit

Antigo soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

346E—Newot-Pence complex, 15 to 45 percent slopes, very stony

Component Description

Newot, very stony, and similar soils

Extent: 45 to 65 percent of the unit
Geomorphic component: Moraines
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: Well drained

Parent material: 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: 6.5 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
 Oa—0 to 2 inches; highly decomposed plant material
 E—2 to 4 inches; sandy loam
 Bs—4 to 10 inches; gravelly sandy loam
 E/B—10 to 25 inches; gravelly sandy loam
 B/E—25 to 38 inches; gravelly sandy loam
 Bt—38 to 55 inches; gravelly sandy loam
 Cd—55 to 60 inches; gravelly sandy loam

Pence, very stony, and similar soils

Extent: 25 to 35 percent of the unit
Geomorphic component: Moraines
Slope range: 15 to 45 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 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 inches
Content of organic matter in the upper 10 inches: 1.3 percent
Typical profile:
 A—0 to 3 inches; sandy loam
 E—3 to 8 inches; sandy loam
 Bs—8 to 15 inches; gravelly sandy loam
 2BC—15 to 21 inches; gravelly coarse sand
 2C—21 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Padus soils that are very stony: 0 to 15 percent of the unit

Newood soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

355B—Loyal silt loam, 1 to 6 percent slopes

Component Description

Loyal and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic component: Ground moraines
Slope range: 1 to 6 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Loess or silty alluvium underlain by loamy till
Flooding: None
Shallowest depth to wet zone: 1 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: 7.5 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 14 inches; silt loam
 E/B—14 to 20 inches; silt loam
 2B/E—20 to 24 inches; loam
 2Bt—24 to 45 inches; loam
 2C—45 to 60 inches; loam

Dissimilar Components

Withee soils: 0 to 15 percent of the unit

Major Uses

- Cropland, hayland, pasture

355C—Loyal silt loam, 6 to 12 percent slopes

Component Description

Loyal and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic component: Ground moraines
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: Loess or silty alluvium underlain by loamy till

Flooding: None

Shallowest depth to wet zone: 1 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: 7.5 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 14 inches; silt loam

E/B—14 to 20 inches; silt loam

2B/E—20 to 24 inches; loam

2Bt—24 to 45 inches; loam

2C—45 to 60 inches; loam

Dissimilar Components

Freeon soils: 0 to 10 percent of the unit

Major Uses

- Cropland, hayland, pasture

356A—Withee silt loam, 0 to 3 percent slopes

Component Description

Withee and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic component: Ground moraines
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 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: 7.9 inches
Content of organic matter in the upper 10 inches: 3.3 percent
Typical profile:
 Ap—0 to 9 inches; silt loam
 E—9 to 14 inches; silt loam
 E/B—14 to 18 inches; silt loam
 B/E—18 to 24 inches; silt loam

2Bt—24 to 47 inches; loam

2C—47 to 60 inches; loam

Dissimilar Components

Marshfield soils: 0 to 15 percent of the unit

Loyal soils: 0 to 10 percent of the unit

Magnor soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

357A—Marshfield silt loam, 0 to 2 percent slopes

Component Description

Marshfield and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic component: Depressions and drainageways on ground moraines

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: Loess or silty alluvium underlain by 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, November, December

Deepest ponding: 0.5 foot (April, May)

Available water capacity to a depth of 60 inches: 8.2 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 14 inches; silt loam

Btg1—14 to 30 inches; silt loam

2Btg2—30 to 36 inches; loam

2C—36 to 60 inches; loam

Dissimilar Components

Cathro soils: 0 to 15 percent of the unit

Withee soils: 0 to 15 percent of the unit

Beseman soils: 0 to 5 percent of the unit

Marshfield soils that are subject to flooding for brief periods: 0 to 5 percent of the unit

Major Uses

- Pasture, wetland wildlife habitat

408A—Lupton and Cathro soils, 0 to 1 percent slopes

Component Description

Lupton and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic component: Depressions on moraines, outwash plains, and 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: Herbaceous and woody organic material more than 51 inches thick

Flooding: None

Shallowest depth to 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: 80 percent

Typical profile:

Oa—0 to 60 inches; muck

Cathro and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic component: Depressions on moraines, outwash plains, and 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: Herbaceous organic material 16 to 51 inches thick over loamy or silty deposits

Flooding: None

Shallowest depth to 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: 80 percent

Typical profile:

Oa—0 to 28 inches; muck

Cg1—28 to 49 inches; loam

Cg2—49 to 60 inches; sandy loam

Dissimilar Components

Beseman soils: 0 to 10 percent of the unit

Capitola soils that are very stony: 0 to 10 percent of the unit

Loxley soils: 0 to 10 percent of the unit

Major Uses

- Forest land, wetland wildlife habitat

414A—Loxley and Beseman soils, 0 to 1 percent slopes

Component Description

Loxley and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic component: Depressions on moraines, outwash plains, and 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: Sphagnum moss and 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 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: 26.3 inches

Content of organic matter in the upper 10 inches: 80 percent

Typical profile:

Oi—0 to 12 inches; peat

Oa—12 to 60 inches; muck

Beseman and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic component: Depressions on moraines, outwash plains, and 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: Sphagnum moss and herbaceous organic material 16 to 51 inches thick over loamy or silty deposits

Flooding: None

Shallowest depth to wet zone: At the surface (April, May, June, October, November)

Deepest depth to wet zone: 1 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: 20.5 inches

Content of organic matter in the upper 10 inches: 80 percent

Typical profile:

Oi—0 to 12 inches; peat

Oa—12 to 36 inches; muck

Cg—36 to 60 inches; silt loam

Dissimilar Components

Capitola soils that are very stony: 0 to 10 percent of the unit

Cathro soils: 0 to 10 percent of the unit

Lupton soils: 0 to 10 percent of the unit

Major Uses

- Wetland wildlife habitat

457B—Freeon, very stony-Freeon complex, ground moraine, 1 to 6 percent slopes

Component Description

Freeon, very stony, and similar soils

Extent: 5 to 75 percent of the unit

Geomorphic component: Ground moraines

Slope range: 1 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 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: 9.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Freeon and similar soils

Extent: 5 to 75 percent of the unit

Geomorphic component: Ground moraines

Slope range: 1 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 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 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 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Dissimilar Components

Magnor soils that are very stony: 0 to 10 percent of the unit

Magnor soils: 0 to 10 percent of the unit

Spencer soils: 0 to 5 percent of the unit

Almena soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

457C—Freeon, very stony-Freeon complex, ground moraine, 6 to 12 percent slopes

Component Description

Freeon, very stony, and similar soils

Extent: 5 to 80 percent of the unit

Geomorphic component: Ground moraines

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 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: 9.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Freeon and similar soils

Extent: 5 to 60 percent of the unit

Geomorphic component: Ground moraines

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 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 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 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Dissimilar Components

Magnor soils that are very stony: 0 to 5 percent of the unit

Magnor soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

515A—Manitowish sandy loam, 0 to 3 percent slopes

Component Description

Manitowish and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic component: Outwash plains and 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: 4.2 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 3 inches; sandy loam

E—3 to 4 inches; sandy loam

Bs1—4 to 16 inches; sandy loam

2Bs2—16 to 19 inches; loamy coarse sand

2C—19 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Pence soils: 0 to 15 percent of the unit

Wormet soils: 0 to 10 percent of the unit

Worcester soils: 0 to 5 percent of the unit

Major Uses

- Cropland, forest land, pasture, wildlife habitat

525B—Newood, very stony-Padwood-Tipler complex, 2 to 6 percent slopes

Component Description

Newood, very stony, and similar soils

Extent: 35 to 45 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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: Mostly loamy till

Flooding: None

Shallowest depth to wet zone: 2 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: 6.7 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam

Bs—5 to 13 inches; gravelly sandy loam

E'—13 to 17 inches; gravelly sandy loam

E/B—17 to 29 inches; gravelly sandy loam

B/E—29 to 37 inches; gravelly sandy loam

Bt—37 to 46 inches; gravelly sandy loam

BCd—46 to 58 inches; sandy loam

Cd—58 to 60 inches; sandy loam

Padwood and similar soils

Extent: 25 to 35 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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: Mostly loamy alluvium or eolian

deposits over sandy or sandy and gravelly
outwash underlain by stratified lacustrine deposits

Flooding: None

Shallowest depth to wet zone: 2 feet (April, May)

Deepest depth to wet zone: More than 6.7 feet
(January, February, 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: 1.8
percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; sandy loam

Bs—5 to 15 inches; sandy loam

E/B—15 to 27 inches; gravelly sandy loam

2Bt—27 to 36 inches; gravelly loamy sand

2C1—36 to 50 inches; fine sand

3C2—50 to 70 inches; stratified fine sand to silt
loam

Tipler and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

Slope range: 2 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 deposits underlain by
sandy or 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: 5.5
inches

Content of organic matter in the upper 10 inches: 1.7
percent

Typical profile:

A—0 to 3 inches; sandy loam

E—3 to 5 inches; sandy loam

Bs—5 to 19 inches; sandy loam

B/E—19 to 26 inches; sandy loam

Bt—26 to 33 inches; sandy loam

2C—33 to 60 inches; stratified sand to very
gravelly coarse sand

Dissimilar Components

Worwood soils: 0 to 10 percent of the unit

Worcester soils: 0 to 5 percent of the unit

Pesabic soils that are very stony: 0 to 5 percent of the
unit

Major Uses

- Cropland, hayland, pasture, forest land

527B—Padwood sandy loam, 0 to 6 percent slopes

Component Description

Padwood and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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: Moderately well drained

Parent material: Loamy alluvium over sandy and
gravelly outwash underlain by lacustrine deposits

Flooding: None

Shallowest depth to wet zone: 2 feet (April, May)

Deepest depth to wet zone: More than 6.7 feet
(January, February, 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: 1.8
percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; sandy loam

Bs—5 to 15 inches; sandy loam

E/B—15 to 27 inches; gravelly sandy loam

2Bt—27 to 36 inches; gravelly loamy sand

2C1—36 to 50 inches; fine sand

3C2—50 to 70 inches; stratified fine sand to silt
loam

Dissimilar Components

Worwood soils: 0 to 10 percent of the unit

Tipler soils: 0 to 5 percent of the unit

Padus soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, and forest land

537D—Newot, very stony-Newood, very stony-Cathro complex, 0 to 35 percent slopes

Component Description

Newot, very stony, and similar soils

Extent: 35 to 50 percent of the unit

Geomorphic component: Moraines
Slope range: 15 to 35 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Well drained
Parent material: 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: 6.5 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
 Oa—0 to 2 inches; highly decomposed plant material
 E—2 to 4 inches; sandy loam
 Bs—4 to 10 inches; gravelly sandy loam
 E/B—10 to 25 inches; gravelly sandy loam
 B/E—25 to 38 inches; gravelly sandy loam
 Bt—38 to 55 inches; gravelly sandy loam
 Cd—55 to 60 inches; gravelly sandy loam

Newood, very stony, and similar soils

Extent: 25 to 40 percent of the unit
Geomorphic component: Moraines
Slope range: 6 to 15 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: Dense loamy till
Flooding: None
Shallowest depth to wet zone: 2 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: 6.7 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
 A—0 to 4 inches; sandy loam
 E—4 to 5 inches; gravelly sandy loam
 Bs—5 to 13 inches; gravelly sandy loam
 E'—13 to 17 inches; gravelly sandy loam
 E/B—17 to 29 inches; gravelly sandy loam
 B/E—29 to 37 inches; gravelly sandy loam
 Bt—37 to 46 inches; gravelly sandy loam
 BCd—46 to 58 inches; sandy loam
 Cd—58 to 60 inches; sandy loam

Cathro and similar soils

Extent: 15 to 20 percent of the unit
Geomorphic component: Depressions 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 loamy or silty deposits
Flooding: None
Shallowest depth to 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: 80 percent
Typical profile:
 Oa—0 to 28 inches; muck
 Cg1—28 to 49 inches; loam
 Cg2—49 to 60 inches; sandy loam

Dissimilar Components

Pesabic soils that are very stony: 0 to 15 percent of the unit
 Capitola soils that are very stony: 0 to 10 percent of the unit
 Freeon soils that are very stony: 0 to 5 percent of the unit

Major Uses

- Pasture, forest land, wildlife habitat

545C—Freeon, very stony-Antigo complex, 6 to 15 percent slopes

Component Description

Freeon, very stony, and similar soils

Extent: 50 to 70 percent of the unit
Geomorphic component: Moraines
Slope range: 6 to 15 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 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: 9.4
inches

Content of organic matter in the upper 10 inches: 1.1
percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant
material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Antigo and similar soils

Extent: 25 to 40 percent of the unit

Geomorphic component: Moraines

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

Dissimilar Components

Magnor soils that are very stony: 0 to 10 percent of the
unit

Sconsin soils: 0 to 5 percent of the unit

Major Uses

- Pasture, wildlife habitat

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

Component Description

Fordum and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic component: 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

Cg3—30 to 60 inches; sand

Dissimilar Components

Somewhat poorly drained areas that are subject
to occasional flooding: 0 to 15 percent of the
unit

Cathro soils that are subject to flooding: 0 to 10
percent of the unit

Moppet soils: 0 to 5 percent of the unit

Major Uses

- Wetland wildlife habitat

560A—Worwood sandy loam, 0 to 3 percent slopes

Component Description

Worwood and similar soils

Extent: 80 to 100 percent of the unit
Geomorphic component: Ice-walled glacial lake plains
Slope range: 0 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Loamy alluvium over sandy and gravelly outwash underlain by 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)
Ponding: None
Available water capacity to a depth of 60 inches: 7 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
 Oi—0 to 1 inch; slightly decomposed plant material
 E—1 to 2 inches; sandy loam
 Bs—2 to 10 inches; sandy loam
 E/B—10 to 15 inches; sandy loam
 B/E—15 to 27 inches; gravelly sandy loam
 2Bt—27 to 38 inches; gravelly loamy sand
 2C1—38 to 50 inches; gravelly coarse sand
 3C2—50 to 70 inches; stratified fine sand to silt loam

Dissimilar Components

Padwood soils: 0 to 10 percent of the unit
 Worcester soils: 0 to 10 percent of the unit
 Minocqua soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

571E—Pelissier gravelly sandy loam, 15 to 45 percent slopes

Component Description

Pelissier and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic component: Eskers and moraines
Slope range: 15 to 45 percent
Texture of the surface layer: Gravelly sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material: Loamy 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: 3.2 inches

Content of organic matter in the upper 10 inches: 0.7 percent

Typical profile:

Oa—0 to 2 inches; highly decomposed plant material

E—2 to 6 inches; gravelly sandy loam

Bs1—6 to 10 inches; gravelly sandy loam

Bs2—10 to 21 inches; very gravelly loamy coarse sand

C—21 to 80 inches; very gravelly coarse sand

Dissimilar Components

Padus soils: 0 to 15 percent of the unit

Pence soils: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

612A—Magnor, very stony-Ossmer complex, 0 to 3 percent slopes

Component Description

Magnor, very stony, and similar soils

Extent: 50 to 70 percent of the unit

Geomorphic component: Moraines

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: 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

Ossmer and similar soils

Extent: 25 to 45 percent of the unit
Geomorphic component: Moraines
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 or sandy and gravelly outwash
Flooding: None
Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4 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

Dissimilar Components

Freeon soils that are very stony: 0 to 10 percent of the unit

Sconsin soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

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

Component Description

Capitola, very stony, and similar soils

Extent: 65 to 100 percent of the unit
Geomorphic component: Depressions and drainageways on disintegration 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: 6.7 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

Dissimilar Components

Cathro soils: 0 to 15 percent of the unit
 Pesabic soils that are very stony: 0 to 10 percent of the unit

Beseman soils: 0 to 5 percent of the unit

Magnor soils that are very stony: 0 to 5 percent of the unit

Capitola soils that are very stony and that are subject to flooding for brief periods: 0 to 5 percent of the unit

Cebana soils that are very stony: 0 to 5 percent of the unit

Major Uses

- Forest land, wetland wildlife habitat

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

Component Description

Ossmer and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic component: Outwash plains, stream terraces, and outwash 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 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

Dissimilar Components

Rib soils: 0 to 10 percent of the unit
 Sconsin soils: 0 to 5 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

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

Component Description

Aftad and similar soils

Extent: 70 to 100 percent of the unit
Geomorphic component: Lake plains and 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 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 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

Dissimilar Components

Plover soils: 0 to 15 percent of the unit
 Scott Lake soils: 0 to 5 percent of the unit
 Crystal Lake soils: 0 to 5 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

637B—Newood sandy loam, 2 to 6 percent slopes, very stony

Component Description

Newood, very stony, and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic component: Moraines
Position on the landform: Shoulders and backslopes
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: Dense loamy till
Flooding: None
Shallowest depth to wet zone: 2 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: 6.7 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
 A—0 to 4 inches; sandy loam
 E—4 to 5 inches; gravelly sandy loam
 Bs—5 to 13 inches; gravelly sandy loam
 E'—13 to 17 inches; gravelly sandy loam
 E/B—17 to 29 inches; gravelly sandy loam
 B/E—29 to 37 inches; gravelly sandy loam
 Bt—37 to 46 inches; gravelly sandy loam

BCd—46 to 58 inches; sandy loam

Cd—58 to 60 inches; sandy loam

Dissimilar Components

Pesabic soils that are very stony: 0 to 15 percent of the unit

Freeon soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Pasture, forest land, wildlife habitat

637C—Newood sandy loam, 6 to 15 percent slopes, very stony

Component Description

Newood, very stony, and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic component: Moraines

Slope range: 6 to 15 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: Dense loamy till

Flooding: None

Shallowest depth to wet zone: 2 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: 6.7 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam

Bs—5 to 13 inches; gravelly sandy loam

E'—13 to 17 inches; gravelly sandy loam

E/B—17 to 29 inches; gravelly sandy loam

B/E—29 to 37 inches; gravelly sandy loam

Bt—37 to 46 inches; gravelly sandy loam

BCd—46 to 58 inches; sandy loam

Cd—58 to 60 inches; sandy loam

Dissimilar Components

Freeon soils that are very stony: 0 to 10 percent of the unit

Newot soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Pasture, forest land, wildlife habitat

642B—Pesabic-Capitola-Newood complex, 0 to 6 percent slopes, very stony

Component Description

Pesabic, very stony, and similar soils

Extent: 40 to 60 percent of the unit

Geomorphic component: Moraines

Slope range: 0 to 4 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: 20 to 40 inches to dense material

Drainage class: Somewhat poorly drained

Parent material: 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: 7.6 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Oe—0 to 3 inches; moderately decomposed plant material

E—3 to 4 inches; sandy loam

Bs—4 to 16 inches; sandy loam

E'—16 to 30 inches; sandy loam

E/B—30 to 39 inches; sandy loam

Bt—39 to 53 inches; gravelly sandy loam

Cd—53 to 84 inches; gravelly sandy loam

Capitola, very stony, and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic component: Depressions and drainageways on moraines

Position on the landform: Toeslopes

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: Loess or silty alluvium; 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, July, August, September, October, December

Deepest ponding: 0.5 foot (March, April, May, June, November)

Available water capacity to a depth of 60 inches: 6.7 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

Newood, very stony, and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic component: Moraines

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: Dense loamy till

Flooding: None

Shallowest depth to wet zone: 2 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: 6.7 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam

Bs—5 to 13 inches; gravelly sandy loam

E'—13 to 17 inches; gravelly sandy loam

E/B—17 to 29 inches; gravelly sandy loam

B/E—29 to 37 inches; gravelly sandy loam

Bt—37 to 46 inches; gravelly sandy loam

BCd—46 to 58 inches; sandy loam

Cd—58 to 60 inches; sandy loam

Dissimilar Components

Cathro soils: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

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

Component Description

Sconsin and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic component: Outwash terraces, stream terraces, and outwash plains

Position on the landform: Summits

Slope range: 1 to 6 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material: 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

2Bt—34 to 38 inches; sandy loam

3C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Antigo soils: 0 to 15 percent of the unit

Ossmer soils: 0 to 10 percent of the unit

Major Uses

- Cropland, forest land, hayland, pasture

683A—Tipler sandy loam, 0 to 3 percent slopes

Component Description

Tipler and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic component: Stream terraces and outwash plains

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 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: 5.5 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

A—0 to 3 inches; sandy loam

E—3 to 5 inches; sandy loam

Bs—5 to 19 inches; sandy loam

B/E—19 to 26 inches; sandy loam

Bt—26 to 33 inches; sandy loam

2C—33 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Padus soils: 0 to 10 percent of the unit

Worcester soils: 0 to 10 percent of the unit

Major Uses

- Cropland, forest land, hayland, wildlife habitat

737D—Santiago silt loam, 15 to 30 percent slopes, very stony

Component Description

Santiago, very stony, and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic component: Moraines

Slope range: 15 to 30 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: 40 to 60 inches to dense material

Drainage class: Well drained

Parent material: Loess or silty alluvium underlain by 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: 8.1 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 16 inches; silt loam

B/E—16 to 22 inches; silt loam

2Bt—22 to 44 inches; sandy loam

2Cd—44 to 60 inches; sandy loam

Dissimilar Components

Newot soils that are very stony: 0 to 15 percent of the unit

Freeon soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

748A—Brander silt loam, 0 to 3 percent slopes

Component Description

Brander and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic component: Outwash plains and stream terraces

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: Moderately well drained

Parent material: Loess or silty alluvium over loamy alluvium underlain by sandy or sandy and gravelly outwash

Flooding: None

Shallowest depth to wet zone: 1.5 feet (April)

Deepest depth to wet zone: 5.5 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 7.7 inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap—0 to 10 inches; silt loam

E/B—10 to 17 inches; silt loam

B/E—17 to 22 inches; silt loam

Bt1—22 to 32 inches; silt loam
 2Bt2—32 to 35 inches; gravelly loam
 3C—35 to 60 inches; stratified sand to very
 gravelly coarse sand

Dissimilar Components

Poskin soils: 0 to 15 percent of the unit
 Antigo soils: 0 to 5 percent of the unit
 Brill soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

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

Component Description

Moppet and similar soils

Extent: 35 to 75 percent of the unit
Geomorphic component: 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 unit
Geomorphic component: 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
 Cg3—30 to 60 inches; sand

Dissimilar Components

Somewhat poorly drained areas that are subject to frequent flooding: 0 to 15 percent of the unit
 Cathro soils: 0 to 5 percent of the unit

Major Uses

- Forest land, wildlife habitat

757B—Magnor-Freeon complex, 0 to 6 percent slopes, very stony

Component Description

Magnor, very stony, and similar soils

Extent: 5 to 70 percent of the unit
Geomorphic component: Moraines
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

Freeon, very stony, and similar soils

Extent: 5 to 60 percent of the unit
Geomorphic component: Moraines
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 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: 9.4 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
 Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 5 inches; silt loam
 Bw—5 to 9 inches; silt loam
 E—9 to 13 inches; silt loam
 E/B—13 to 19 inches; silt loam
 2B/E—19 to 26 inches; sandy loam
 2Bt—26 to 38 inches; sandy loam
 2BCd—38 to 58 inches; sandy loam
 2Cd—58 to 60 inches; sandy loam

Magnor and similar soils

Extent: 5 to 55 percent of the unit
Geomorphic component: Moraines
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

Freeon and similar soils

Extent: 5 to 45 percent of the unit
Geomorphic component: Moraines
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 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 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 13 inches; silt loam
 E/B—13 to 19 inches; silt loam
 2B/E—19 to 26 inches; sandy loam
 2Bt—26 to 38 inches; sandy loam
 2BCd—38 to 58 inches; sandy loam
 2Cd—58 to 60 inches; sandy loam

Dissimilar Components

Cebana soils that are very stony: 0 to 10 percent of the unit
 Capitola soils that are very stony: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

766A—Moppet fine sandy loam, 0 to 3 percent slopes

Component Description

Moppet and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic component: 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

Dissimilar Components

Somewhat poorly drained areas that are subject to frequent flooding: 0 to 15 percent of the unit
 Fordum soils: 0 to 5 percent of the unit

Major Uses

- Cropland, pasture, hayland, forest land

822A—Comstock-Magnor, very stony-Ossmer complex, 0 to 3 percent slopes

Component Description

Comstock and similar soils

Extent: 30 to 50 percent of the unit
Geomorphic component: Ice-walled glacial lake plains
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 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

Magnor, very stony, and similar soils

Extent: 25 to 45 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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: 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

Ossmer and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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 over loamy alluvium underlain by sandy or sandy and gravelly outwash

Flooding: None

Shallowest depth to wet zone: 0.5 foot (April)

Deepest depth to wet zone: 4 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

Dissimilar Components

Barronett soils: 0 to 5 percent of the unit

Crystal Lake soils: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

837E—Newot sandy loam, 15 to 45 percent slopes, very stony

Component Description

Newot, very stony, and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic component: End moraines

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: Well drained

Parent material: 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: 6.5 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oa—0 to 2 inches; highly decomposed plant material

E—2 to 4 inches; sandy loam

Bs—4 to 10 inches; gravelly sandy loam

E/B—10 to 25 inches; gravelly sandy loam

B/E—25 to 38 inches; gravelly sandy loam

Bt—38 to 55 inches; gravelly sandy loam

Cd—55 to 60 inches; gravelly sandy loam

Dissimilar Components

Newood soils that are very stony: 0 to 10 percent of the unit

Santiago soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

848A—Ribriver silt loam, 0 to 3 percent slopes

Component Description

Ribriver and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic component: Stream terraces and outwash plains

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: 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: 5.5 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 1.4 percent

Typical profile:

A—0 to 5 inches; silt loam

Bw—5 to 10 inches; silt loam

E/B—10 to 17 inches; silt loam

B/E—17 to 24 inches; silt loam

Bt1—24 to 45 inches; silt loam

2Bt2—45 to 48 inches; gravelly sandy loam

3C—48 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Maplehurst soils: 0 to 15 percent of the unit

Blackriver soils: 0 to 10 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

863B—Crystal Lake-Freeon, very stony-Sconsin complex, 2 to 6 percent slopes

Component Description

Crystal Lake and similar soils

Extent: 25 to 45 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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: Silty lacustrine deposits

Flooding: None

Shallowest depth to wet zone: 2 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

Freeon, very stony, and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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 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: 9.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Sconsin and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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: Loess or silty alluvium over loamy alluvium underlain by sandy or 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, 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

2Bt—34 to 38 inches; sandy loam

3C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Magnor soils that are very stony: 0 to 15 percent of the unit

Comstock soils: 0 to 10 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

923A—Capitola-Cebana complex, 0 to 2 percent slopes, very stony

Component Description

Capitola, very stony, and similar soils

Extent: 30 to 50 percent of the unit
Geomorphic component: Depressions and drainageways on ground 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, July, August, September, October, December
Deepest ponding: 0.5 foot (March, April, May, June, November)
Available water capacity to a depth of 60 inches: 6.7 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

Cebana, very stony, and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic component: Depressions and drainageways on ground moraines
Slope range: 0 to 2 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Poorly drained
Parent material: Loess or silty alluvium; 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 (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: 8.6 inches
Content of organic matter in the upper 10 inches: 1.8 percent
Typical profile:
 Ap—0 to 8 inches; silt loam
 Eg—8 to 13 inches; silt loam
 E/B—13 to 27 inches; silt loam
 2Bt—27 to 49 inches; loam
 2BCd—49 to 67 inches; sandy loam
 2Cd—67 to 80 inches; sandy loam

Dissimilar Components

Cathro soils: 0 to 15 percent of the unit
 Magnor soils that are very stony: 0 to 15 percent of the unit
 Auburndale soils: 0 to 10 percent of the unit
 Capitola soils that are very stony and that are subject to flooding for brief periods: 0 to 5 percent of the unit
 Cebana soils that are very stony and that are subject to flooding for brief periods: 0 to 5 percent of the unit

Major Uses

- Forest land, wetland wildlife habitat

956B—Magnor silt loam, end moraine, 0 to 4 percent slopes, very stony

Component Description

Magnor, very stony, and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic component: End moraines
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

Dissimilar Components

Freeon soils that are very stony: 0 to 15 percent of the unit

Capitola soils that are very stony: 0 to 10 percent of the unit

Pesabic soils that are very stony: 0 to 5 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

957B—Freeon silt loam, end moraine, 2 to 6 percent slopes, very stony***Component Description*****Freeon, very stony, and similar soils**

Extent: 75 to 100 percent of the unit
Geomorphic component: End moraines
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 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: 9.4 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
 Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 5 inches; silt loam
 Bw—5 to 9 inches; silt loam
 E—9 to 13 inches; silt loam
 E/B—13 to 19 inches; silt loam
 2B/E—19 to 26 inches; sandy loam
 2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Dissimilar Components

Magnor soils that are very stony: 0 to 15 percent of the unit

Newood soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

957C—Freeon silt loam, end moraine, 6 to 15 percent slopes, very stony***Component Description*****Freeon, very stony, and similar soils**

Extent: 75 to 100 percent of the unit
Geomorphic component: End moraines
Slope range: 6 to 15 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 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: 9.4 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
 Oi—0 to 1 inch; slightly decomposed plant material
 A—1 to 5 inches; silt loam
 Bw—5 to 9 inches; silt loam
 E—9 to 13 inches; silt loam
 E/B—13 to 19 inches; silt loam
 2B/E—19 to 26 inches; sandy loam
 2Bt—26 to 38 inches; sandy loam
 2BCd—38 to 58 inches; sandy loam
 2Cd—58 to 60 inches; sandy loam

Dissimilar Components

Newood soils that are very stony: 0 to 15 percent of the unit

Magnor soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

2015—Pits

Component Description

- This map unit consists of open excavations from which sand, gravel, or loamy material has been removed. Most of the pits are in areas of outwash, but some are in areas of till or in areas where the soils formed in sandy material weathered from sandstone bedrock. Some of the pits are still in use. Others are no longer used and have been reclaimed or are vegetated 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.

Dissimilar Components

Water: 0 to 10 percent of the unit
Reclaimed areas: 0 to 10 percent of the unit

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

Component Description

Barronett and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic component: 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 (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: 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

Dissimilar Components

Cathro soils: 0 to 15 percent of the unit
Comstock soils: 0 to 10 percent of the unit

Major Uses

- Wetland wildlife habitat

3456A—Magnor, very stony-Magnor complex, ground moraine, 0 to 3 percent slopes

Component Description

Magnor, very stony, and similar soils

Extent: 5 to 75 percent of the unit
Geomorphic component: Ground moraines
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: 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 unit
Geomorphic component: Ground moraines
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: 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

Dissimilar Components

Cebana soils: 0 to 15 percent of the unit

Almena soils: 0 to 10 percent of the unit

Freeon soils that are very stony: 0 to 10 percent of the unit

Freeon soils: 0 to 10 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

3525C—Newood, very stony-Padwood-Padus complex, 6 to 15 percent slopes

Component Description

Newood, very stony, and similar soils

Extent: 35 to 45 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

Slope range: 6 to 15 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: Mostly loamy till

Flooding: None

Shallowest depth to wet zone: 2 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: 6.7 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam

Bs—5 to 13 inches; gravelly sandy loam

E'—13 to 17 inches; gravelly sandy loam

E/B—17 to 29 inches; gravelly sandy loam

B/E—29 to 37 inches; gravelly sandy loam

Bt—37 to 46 inches; gravelly sandy loam

BCd—46 to 58 inches; sandy loam

Cd—58 to 60 inches; sandy loam

Padwood and similar soils

Extent: 25 to 35 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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: Moderately well drained

Parent material: Mostly loamy alluvium or eolian deposits over sandy or sandy and gravelly outwash underlain by stratified lacustrine deposits

Flooding: None

Shallowest depth to wet zone: 2 feet (April, May)

Deepest depth to wet zone: More than 6.7 feet (January, February, 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: 1.8 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; sandy loam

Bs—5 to 15 inches; sandy loam

E/B—15 to 27 inches; gravelly sandy loam

2Bt—27 to 36 inches; gravelly loamy sand

2C1—36 to 50 inches; fine sand

3C2—50 to 70 inches; stratified fine sand to silt loam

Padus and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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: Mostly loamy alluvium or eolian deposits underlain by sandy or 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: 6 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A—0 to 2 inches; sandy loam

E—2 to 3 inches; sandy loam

Bs—3 to 19 inches; sandy loam

E/B—19 to 26 inches; sandy loam

B/E—26 to 38 inches; sandy loam

2C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Worwood soils: 0 to 10 percent of the unit

Tipler soils: 0 to 5 percent of the unit

Pesabic soils that are very stony: 0 to 5 percent of the unit

Major Uses

- Pasture, forest land

3546C—Newood-Pence complex, 6 to 15 percent slopes, very stony

Component Description

Newood, very stony, and similar soils

Extent: 45 to 65 percent of the unit

Geomorphic component: Moraines

Slope range: 6 to 15 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: Dense loamy till

Flooding: None

Shallowest depth to wet zone: 2 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: 6.7 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam

Bs—5 to 13 inches; gravelly sandy loam

E'—13 to 17 inches; gravelly sandy loam

E/B—17 to 29 inches; gravelly sandy loam

B/E—29 to 37 inches; gravelly sandy loam

Bt—37 to 46 inches; gravelly sandy loam

BCd—46 to 58 inches; sandy loam

Cd—58 to 60 inches; sandy loam

Pence, very stony, and similar soils

Extent: 25 to 45 percent of the unit

Geomorphic component: Moraines

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: Somewhat excessively drained

Parent material: Loamy 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: 4 inches

Content of organic matter in the upper 10 inches: 1.3 percent

Typical profile:

A—0 to 3 inches; sandy loam

E—3 to 8 inches; sandy loam

Bs—8 to 15 inches; gravelly sandy loam

2BC—15 to 21 inches; gravelly coarse sand

2C—21 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Padus soils that are very stony: 0 to 15 percent of the unit

Major Uses

- Pasture, forest land, wildlife habitat

3556C—Newood, very stony-Magnor, very stony-Cathro complex, 0 to 15 percent slopes

Component Description

Newood, very stony, and similar soils

Extent: 30 to 40 percent of the unit

Geomorphic component: Moraines

Slope range: 6 to 15 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: Dense loamy till

Flooding: None

Shallowest depth to wet zone: 2 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: 6.7 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam

Bs—5 to 13 inches; gravelly sandy loam

E'—13 to 17 inches; gravelly sandy loam

E/B—17 to 29 inches; gravelly sandy loam

B/E—29 to 37 inches; gravelly sandy loam

Bt—37 to 46 inches; gravelly sandy loam

BCd—46 to 58 inches; sandy loam

Cd—58 to 60 inches; sandy loam

Magnor, very stony, and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic component: Moraines

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

Cathro and similar soils

Extent: 15 to 20 percent of the unit

Geomorphic component: Depressions 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 loamy or silty deposits

Flooding: None

Shallowest depth to 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: 80 percent

Typical profile:

Oa—0 to 28 inches; muck

Cg1—28 to 49 inches; loam

Cg2—49 to 60 inches; sandy loam

Dissimilar Components

Freeon soils that are very stony: 0 to 15 percent of the unit

Capitola soils that are very stony: 0 to 10 percent of the unit

Pesabic soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Pasture, forest land, wildlife habitat

3561A—Pesabic, very stony-Worwood-Worcester complex, 0 to 3 percent slopes

Component Description

Pesabic, very stony, and similar soils

Extent: 30 to 50 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

Slope range: 0 to 3 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: Mostly 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: 7.6 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Oe—0 to 3 inches; moderately decomposed plant material
 E—3 to 4 inches; sandy loam
 Bs—4 to 16 inches; sandy loam
 E'—16 to 30 inches; sandy loam
 E/B—30 to 39 inches; sandy loam
 Bt—39 to 53 inches; gravelly sandy loam
 Cd—53 to 84 inches; gravelly sandy loam

Worwood and similar soils

Extent: 25 to 35 percent of the unit
Geomorphic component: Ice-walled glacial lake plains
Slope range: 0 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Mostly loamy alluvium deposits over sandy or sandy and gravelly outwash underlain by stratified 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)
Ponding: None
Available water capacity to a depth of 60 inches: 7 inches
Content of organic matter in the upper 10 inches: 1 percent
Typical profile:
 Oi—0 to 1 inch; slightly decomposed plant material
 E—1 to 2 inches; sandy loam
 Bs—2 to 10 inches; sandy loam
 E/B—10 to 15 inches; sandy loam
 B/E—15 to 27 inches; gravelly sandy loam
 2Bt—27 to 38 inches; gravelly loamy sand
 2C1—38 to 50 inches; gravelly coarse sand
 3C2—50 to 70 inches; stratified fine sand to silt loam

Worcester and similar soils

Extent: 15 to 25 percent of the unit
Geomorphic component: Ice-walled glacial lake plains
Slope range: 0 to 3 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Parent material: Mostly loamy alluvium or eolian deposits underlain by sandy or sandy and gravelly outwash
Flooding: None

Shallowest depth to wet zone: 0.5 foot (April)
Deepest depth to wet zone: 4 feet (February, August)
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 2 inches; sandy loam
 E—2 to 3 inches; sandy loam
 Bhs—3 to 6 inches; sandy loam
 Bs—6 to 16 inches; sandy loam
 B/E—16 to 20 inches; sandy loam
 Bt1—20 to 32 inches; sandy loam
 2Bt2—32 to 39 inches; gravelly loamy sand
 2C—39 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Capitola soils that are very stony: 0 to 10 percent of the unit
 Minocqua soils: 0 to 10 percent of the unit

Major Uses

- Cropland, hayland, pasture, forest land

3569C—Newood, very stony-Pesabic, very stony-Cathro complex, 0 to 15 percent slopes

Component Description**Newood, very stony, and similar soils**

Extent: 40 to 55 percent of the unit
Geomorphic component: Moraines
Slope range: 2 to 15 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: Dense loamy till
Flooding: None
Shallowest depth to wet zone: 2 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: 6.7 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
 A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam
 Bs—5 to 13 inches; gravelly sandy loam
 E'—13 to 17 inches; gravelly sandy loam
 E/B—17 to 29 inches; gravelly sandy loam
 B/E—29 to 37 inches; gravelly sandy loam
 Bt—37 to 46 inches; gravelly sandy loam
 BCd—46 to 58 inches; sandy loam
 Cd—58 to 60 inches; sandy loam

Pesabic, very stony, and similar soils

Extent: 25 to 35 percent of the unit
Geomorphic component: Moraines
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: 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: 7.6 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
 Oe—0 to 3 inches; moderately decomposed plant material
 E—3 to 4 inches; sandy loam
 Bs—4 to 16 inches; sandy loam
 E'—16 to 30 inches; sandy loam
 E/B—30 to 39 inches; sandy loam
 Bt—39 to 53 inches; gravelly sandy loam
 Cd—53 to 84 inches; gravelly sandy loam

Cathro and similar soils

Extent: 15 to 20 percent of the unit
Geomorphic component: Depressions 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 loamy or silty deposits
Flooding: None
Shallowest depth to 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: 80 percent

Typical profile:

Oa—0 to 28 inches; muck
 Cg1—28 to 49 inches; loam
 Cg2—49 to 60 inches; sandy loam

Dissimilar Components

Capitola soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Pasture, forest land, wildlife habitat

3666B—Pesabic sandy loam, 0 to 4 percent slopes, very stony

Component Description

Pesabic, very stony, and similar soils

Extent: 75 to 100 percent of the unit
Geomorphic component: Moraines
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: 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: 7.6 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
 Oe—0 to 3 inches; moderately decomposed plant material
 E—3 to 4 inches; sandy loam
 Bs—4 to 16 inches; sandy loam
 E'—16 to 30 inches; sandy loam
 E/B—30 to 39 inches; sandy loam
 Bt—39 to 53 inches; gravelly sandy loam
 Cd—53 to 84 inches; gravelly sandy loam

Dissimilar Components

Capitola soils that are very stony: 0 to 15 percent of the unit

Newood soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

3863C—Crystal Lake-Freeon, very stony-Antigo complex, 6 to 15 percent slopes

Component Description

Crystal Lake and similar soils

Extent: 30 to 50 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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: Moderately well drained

Parent material: Silty lacustrine deposits

Flooding: None

Shallowest depth to wet zone: 2 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

Freeon, very stony, and similar soils

Extent: 25 to 45 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

Slope range: 6 to 15 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 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: 9.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Antigo and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

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 over loamy alluvium underlain by sandy or 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

Dissimilar Components

Sconsin soils: 0 to 5 percent of the unit

Major Uses

- Pasture, forest land

9052A—Cathro-Capitola, very stony-Lupton complex, 0 to 1 percent slopes

Component Description

Cathro and similar soils

Extent: 35 to 55 percent of the unit

Geomorphic component: Depressions 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 loamy or silty deposits

Flooding: None

Shallowest depth to 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: 80 percent

Typical profile:

Oa—0 to 28 inches; muck

Cg1—28 to 49 inches; loam

Cg2—49 to 60 inches; sandy loam

Capitola, very stony, and similar soils

Extent: 25 to 45 percent of the unit

Geomorphic component: Depressions and drainageways on moraines

Position on the landform: Toeslopes

Slope range: 0 to 1 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 sandy loam 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: 6.7 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

Lupton and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic component: Depressions 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 and woody organic material more than 51 inches thick

Flooding: None

Shallowest depth to 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: 80 percent

Typical profile:

Oa—0 to 60 inches; muck

Major Uses

- Forest land, wetland wildlife habitat

9055A—Loxley peat, 0 to 1 percent slopes

Component Description

Loxley and similar soils

Extent: 90 to 100 percent of the unit

Geomorphic component: Depressions on moraines, outwash plains, and 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: Sphagnum moss and 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 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: 26.3 inches

Content of organic matter in the upper 10 inches: 80 percent

Typical profile:

Oi—0 to 12 inches; peat

Oa—12 to 60 inches; muck

Dissimilar Components

Capitola soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Wetland wildlife habitat

9060D—Pelissier sandy loam, 20 to 45 percent slopes

Component Description

Pelissier and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic component: Eskers

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: Excessively drained

Parent material: Loamy deposits 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: 3.7 inches

Content of organic matter in the upper 10 inches: 0.7 percent

Typical profile:

Oa—0 to 2 inches; highly decomposed plant material

E—2 to 6 inches; sandy loam

Bs1—6 to 10 inches; gravelly sandy loam

Bs2—10 to 21 inches; very gravelly loamy coarse sand

C—21 to 80 inches; very gravelly coarse sand

Dissimilar Components

Padus soils: 0 to 15 percent of the unit

Pence soils: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

9071B—Freeon silt loam, 5 to 10 percent slopes, very stony

Component Description

Freeon, very stony, and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic component: Moraines

Slope range: 5 to 10 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 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: 9.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Dissimilar Components

Magnor soils that are very stony: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

9077C—Freeon silt loam, 10 to 20 percent slopes, very stony

Component Description

Freeon, very stony, and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic component: Moraines

Slope range: 10 to 20 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 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: 9.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Dissimilar Components

Santiago soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

9078A—Freeon, very stony-Magnor, very stony-Ossmer complex, 0 to 5 percent slopes

Component Description

Freeon, very stony, and similar soils

Extent: 30 to 50 percent of the unit

Geomorphic component: Moraines

Slope range: 0 to 5 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 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: 9.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Magnor, very stony, and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic component: Moraines

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

Ossmer and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic component: Moraines

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 over loamy alluvium underlain by sandy or sandy and gravelly outwash

Flooding: None

Shallowest depth to wet zone: 0.5 foot (April)

Deepest depth to wet zone: 4 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

Dissimilar Components

Sconsin soils: 0 to 5 percent of the unit

Capitola soils that are very stony: 0 to 5 percent of the unit

Major Uses

- Forest land, wildlife habitat

9081C—Newot sandy loam, 10 to 30 percent slopes, very stony

Component Description

Newot, very stony, and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic component: Moraines

Slope range: 10 to 30 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: 40 to 60 inches to dense material

Drainage class: Well drained

Parent material: Mostly 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: 6.5 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oa—0 to 2 inches; highly decomposed plant material

E—2 to 4 inches; sandy loam

Bs—4 to 10 inches; gravelly sandy loam

E/B—10 to 25 inches; gravelly sandy loam

B/E—25 to 38 inches; gravelly sandy loam

Bt—38 to 55 inches; gravelly sandy loam

Cd—55 to 60 inches; gravelly sandy loam

Dissimilar Components

Newood soils that are very stony: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

9082B—Newood sandy loam, 5 to 10 percent slopes, very stony

Component Description

Newood, very stony, and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic component: Moraines

Slope range: 5 to 10 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: Mostly loamy till

Flooding: None

Shallowest depth to wet zone: 2 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: 6.7 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam

Bs—5 to 13 inches; gravelly sandy loam

E'—13 to 17 inches; gravelly sandy loam
 E/B—17 to 29 inches; gravelly sandy loam
 B/E—29 to 37 inches; gravelly sandy loam
 Bt—37 to 46 inches; gravelly sandy loam
 BCd—46 to 58 inches; sandy loam
 Cd—58 to 60 inches; sandy loam

Dissimilar Components

Pesabic soils that are very stony: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

9083A—Crystal Lake silt loam, 0 to 5 percent slopes

Component Description

Crystal Lake and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic component: Ice-walled glacial lake plains
Slope range: 0 to 5 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: Silty lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2 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: 1.5 percent
Typical profile:
 A—0 to 4 inches; silt loam
 E—4 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

Dissimilar Components

Comstock soils: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

9083B—Crystal Lake silt loam, 5 to 10 percent slopes

Component Description

Crystal Lake and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic component: Ice-walled glacial lake plains
Slope range: 5 to 10 percent
Texture of the surface layer: Silt loam
Depth to restrictive feature: Very deep (more than 60 inches)
Drainage class: Moderately well drained
Parent material: Silty lacustrine deposits
Flooding: None
Shallowest depth to wet zone: 2 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: 1.5 percent
Typical profile:
 A—0 to 4 inches; silt loam
 E—4 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

Dissimilar Components

Comstock soils: 0 to 5 percent of the unit

Major Uses

- Forest land, wildlife habitat

9086A—Freeon silt loam, 0 to 5 percent slopes, very stony

Component Description

Freeon, very stony, and similar soils

Extent: 85 to 100 percent of the unit
Geomorphic component: Moraines
Slope range: 0 to 5 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 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: 9.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Dissimilar Components

Magnor soils that are very stony: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

9087C—Crystal Lake-Freeon, very stony-Newot, very stony, complex, 10 to 20 percent slopes

Component Description

Crystal Lake and similar soils

Extent: 30 to 50 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

Slope range: 10 to 20 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: Silty lacustrine deposits

Flooding: None

Shallowest depth to wet zone: 2 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: 1.5 percent

Typical profile:

A—0 to 4 inches; silt loam

E—4 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

Freeon, very stony, and similar soils

Extent: 25 to 45 percent of the unit

Geomorphic component: Ice-walled glacial lake plains

Slope range: 10 to 15 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 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: 9.4 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 5 inches; silt loam

Bw—5 to 9 inches; silt loam

E—9 to 13 inches; silt loam

E/B—13 to 19 inches; silt loam

2B/E—19 to 26 inches; sandy loam

2Bt—26 to 38 inches; sandy loam

2BCd—38 to 58 inches; sandy loam

2Cd—58 to 60 inches; sandy loam

Newot, very stony, and similar soils

Extent: 15 to 25 percent of the unit

Geomorphic component: Ice-walled glacial lake basins

Slope range: 10 to 20 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: 40 to 60 inches to dense material

Drainage class: Well drained

Parent material: Mostly 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: 6.5 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oa—0 to 2 inches; highly decomposed plant material

E—2 to 4 inches; sandy loam

Bs—4 to 10 inches; gravelly sandy loam

E/B—10 to 25 inches; gravelly sandy loam

B/E—25 to 38 inches; gravelly sandy loam

Bt—38 to 55 inches; gravelly sandy loam

Cd—55 to 60 inches; gravelly sandy loam

Dissimilar Components

Newood soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

9088A—Newood-Capitola complex, 0 to 5 percent slopes, very stony

Component Description

Newood, very stony, and similar soils

Extent: 55 to 65 percent of the unit

Geomorphic component: Moraines

Slope range: 2 to 5 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: Mostly loamy till

Flooding: None

Shallowest depth to wet zone: 2 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: 6.7 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam

Bs—5 to 13 inches; gravelly sandy loam

E'—13 to 17 inches; gravelly sandy loam

E/B—17 to 29 inches; gravelly sandy loam

B/E—29 to 37 inches; gravelly sandy loam

Bt—37 to 46 inches; gravelly sandy loam

BCd—46 to 58 inches; sandy loam

Cd—58 to 60 inches; sandy loam

Capitola, very stony, and similar soils

Extent: 20 to 30 percent of the unit

Geomorphic component: Depressions and drainageways on moraines

Position on the landform: Toeslopes

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: Mostly loess or silty alluvium; or loamy alluvium underlain by 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: 6.7 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

Dissimilar Components

Pesabic soils that are very stony: 0 to 15 percent of the unit

Cathro soils: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

9089B—Newood, very stony-Lupton complex, 0 to 10 percent slopes

Component Description

Newood, very stony, and similar soils

Extent: 45 to 65 percent of the unit

Geomorphic component: Moraines

Slope range: 2 to 10 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: Mostly loamy till
Flooding: None
Shallowest depth to wet zone: 2 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: 6.7 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
 A—0 to 4 inches; sandy loam
 E—4 to 5 inches; gravelly sandy loam
 Bs—5 to 13 inches; gravelly sandy loam
 E'—13 to 17 inches; gravelly sandy loam
 E/B—17 to 29 inches; gravelly sandy loam
 B/E—29 to 37 inches; gravelly sandy loam
 Bt—37 to 46 inches; gravelly sandy loam
 BCd—46 to 58 inches; sandy loam
 Cd—58 to 60 inches; sandy loam

Lupton and similar soils

Extent: 20 to 30 percent of the unit
Geomorphic component: Depressions on moraines, outwash plains, and 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: Herbaceous and woody organic material more than 51 inches thick
Flooding: None
Shallowest depth to 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: 80 percent
Typical profile:
 Oa—0 to 60 inches; muck

Dissimilar Components

Capitola soils that are very stony: 0 to 15 percent of the unit
 Pesabic soils that are very stony: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

9090C—Newood, very stony-Newot, very stony-Lupton complex, 0 to 30 percent slopes

Component Description

Newood, very stony, and similar soils

Extent: 35 to 55 percent of the unit
Geomorphic component: Moraines
Slope range: 2 to 15 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: Mostly loamy till
Flooding: None
Shallowest depth to wet zone: 2 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: 6.7 inches
Content of organic matter in the upper 10 inches: 1.6 percent
Typical profile:
 A—0 to 4 inches; sandy loam
 E—4 to 5 inches; gravelly sandy loam
 Bs—5 to 13 inches; gravelly sandy loam
 E'—13 to 17 inches; gravelly sandy loam
 E/B—17 to 29 inches; gravelly sandy loam
 B/E—29 to 37 inches; gravelly sandy loam
 Bt—37 to 46 inches; gravelly sandy loam
 BCd—46 to 58 inches; sandy loam
 Cd—58 to 60 inches; sandy loam

Newot, very stony, and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic component: Moraines
Slope range: 15 to 30 percent

Texture of the surface layer: Sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material

Drainage class: Well drained

Parent material: Mostly 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: 6.5 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oa—0 to 2 inches; highly decomposed plant material

E—2 to 4 inches; sandy loam

Bs—4 to 10 inches; gravelly sandy loam

E/B—10 to 25 inches; gravelly sandy loam

B/E—25 to 38 inches; gravelly sandy loam

Bt—38 to 55 inches; gravelly sandy loam

Cd—55 to 60 inches; gravelly sandy loam

Lupton and similar soils

Extent: 15 to 20 percent of the unit

Geomorphic component: Depressions on moraines, outwash plains, and 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: Herbaceous and woody organic material more than 51 inches thick

Flooding: None

Shallowest depth to 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: 80 percent

Typical profile:

Oa—0 to 60 inches; muck

Dissimilar Components

Capitola soils that are very stony: 0 to 10 percent of the unit

Pesabic soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

9092D—Newot sandy loam, 20 to 45 percent slopes, very stony

Component Description

Newot, very stony, and similar soils

Extent: 90 to 100 percent of the unit

Geomorphic component: Moraines

Slope range: 20 to 45 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: 40 to 60 inches to dense material

Drainage class: Well drained

Parent material: Mostly 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: 6.5 inches

Content of organic matter in the upper 10 inches: 1.1 percent

Typical profile:

Oa—0 to 2 inches; highly decomposed plant material

E—2 to 4 inches; sandy loam

Bs—4 to 10 inches; gravelly sandy loam

E/B—10 to 25 inches; gravelly sandy loam

B/E—25 to 38 inches; gravelly sandy loam

Bt—38 to 55 inches; gravelly sandy loam

Cd—55 to 60 inches; gravelly sandy loam

Dissimilar Components

Newood soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

9093C—Pence-Padus complex, 10 to 30 percent slopes

Component Description

Pence and similar soils

Extent: 40 to 60 percent of the unit

Geomorphic component: Stream terraces, outwash plains, and eskers

Slope range: 10 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: Mostly loamy alluvium or eolian deposits underlain by sandy or 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 inches
Content of organic matter in the upper 10 inches: 1.3 percent
Typical profile:
 A—0 to 3 inches; sandy loam
 E—3 to 8 inches; sandy loam
 Bs—8 to 15 inches; gravelly sandy loam
 2BC—15 to 21 inches; gravelly coarse sand
 2C—21 to 60 inches; stratified sand to very gravelly coarse sand

Padus and similar soils

Extent: 30 to 50 percent of the unit
Geomorphic component: Stream terraces, outwash plains, and eskers
Slope range: 10 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: Mostly loamy alluvium or eolian deposits underlain by sandy or 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: 6 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
 A—0 to 2 inches; sandy loam
 E—2 to 3 inches; sandy loam
 Bs—3 to 19 inches; sandy loam
 E/B—19 to 26 inches; sandy loam
 B/E—26 to 38 inches; sandy loam
 2C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Pelissier soils: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

9096C—Newot, very stony-Pesabic, very stony-Lupton complex, 0 to 30 percent slopes

Component Description

Newot, very stony, and similar soils

Extent: 30 to 50 percent of the unit
Geomorphic component: Moraines
Slope range: 15 to 30 percent
Texture of the surface layer: Sandy loam
Depth to restrictive feature: 40 to 60 inches to dense material
Drainage class: Well drained
Parent material: Mostly 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: 6.5 inches
Content of organic matter in the upper 10 inches: 1.1 percent
Typical profile:
 Oa—0 to 2 inches; highly decomposed plant material
 E—2 to 4 inches; sandy loam
 Bs—4 to 10 inches; gravelly sandy loam
 E/B—10 to 25 inches; gravelly sandy loam
 B/E—25 to 38 inches; gravelly sandy loam
 Bt—38 to 55 inches; gravelly sandy loam
 Cd—55 to 60 inches; gravelly sandy loam

Pesabic, very stony, and similar soils

Extent: 20 to 40 percent of the unit
Geomorphic component: Moraines
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: Mostly 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: 7.6 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Oe—0 to 3 inches; moderately decomposed plant material

E—3 to 4 inches; sandy loam

Bs—4 to 16 inches; sandy loam

E'—16 to 30 inches; sandy loam

E/B—30 to 39 inches; sandy loam

Bt—39 to 53 inches; gravelly sandy loam

Cd—53 to 84 inches; gravelly sandy loam

Lupton and similar soils

Extent: 15 to 20 percent of the unit

Geomorphic component: Depressions on moraines, outwash plains, and 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: Herbaceous and woody organic material more than 51 inches thick

Flooding: None

Shallowest depth to 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: 80 percent

Typical profile:

Oa—0 to 60 inches; muck

Dissimilar Components

Newood soils that are very stony: 0 to 10 percent of the unit

Capitola soils that are very stony: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

9097B—Newood-Padus complex, 5 to 10 percent slopes, very stony

Component Description

Newood, very stony, and similar soils

Extent: 50 to 70 percent of the unit

Geomorphic component: Moraines

Slope range: 5 to 10 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: Mostly loamy till

Flooding: None

Shallowest depth to wet zone: 2 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: 6.7 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

A—0 to 4 inches; sandy loam

E—4 to 5 inches; gravelly sandy loam

Bs—5 to 13 inches; gravelly sandy loam

E'—13 to 17 inches; gravelly sandy loam

E/B—17 to 29 inches; gravelly sandy loam

B/E—29 to 37 inches; gravelly sandy loam

Bt—37 to 46 inches; gravelly sandy loam

BCd—46 to 58 inches; sandy loam

Cd—58 to 60 inches; sandy loam

Padus, very stony, and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic component: Moraines

Slope range: 5 to 10 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained

Parent material: Mostly loamy alluvium or eolian deposits underlain by sandy or 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: 6 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A—0 to 2 inches; sandy loam

E—2 to 3 inches; sandy loam

Bs—3 to 19 inches; sandy loam

E/B—19 to 26 inches; sandy loam

B/E—26 to 38 inches; sandy loam

2C—38 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Pence soils that are very stony: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

9098A—Oesterle loam, 0 to 3 percent slopes***Component Description*****Oesterle and similar soils**

Extent: 75 to 100 percent of the unit

Geomorphic component: Stream terraces and outwash plains

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: Mostly loamy alluvium or eolian deposits underlain by sandy or sandy and gravelly outwash

Flooding: None

Shallowest depth to wet zone: 0.5 foot (April)

Deepest depth to wet zone: 4 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: 1.1 percent

Typical profile:

Oe—0 to 2 inches; moderately decomposed plant material

A—2 to 5 inches; loam

E—5 to 13 inches; fine sandy loam

E/B—13 to 18 inches; fine sandy loam

B/E1—18 to 26 inches; loam

B/E2—26 to 35 inches; sandy loam

2BC—35 to 44 inches; loamy sand

2C—44 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Minocqua soils: 0 to 15 percent of the unit

Tipler soils: 0 to 10 percent of the unit

Major Uses

- Forest land, wildlife habitat

9099B—Antigo silt loam, 5 to 10 percent slopes***Component Description*****Antigo and similar soils**

Extent: 85 to 100 percent of the unit

Geomorphic component: Outwash plains, stream terraces, glacial lake plains, and moraines

Slope range: 5 to 10 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 over loamy alluvium underlain by sandy or 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: 8.3 inches

Content of organic matter in the upper 10 inches: 0.5 percent

Typical profile:

Oe—0 to 2 inches; highly decomposed plant material

E—2 to 4 inches; silt loam

Bw—4 to 14 inches; silt loam

E/B—14 to 20 inches; silt loam

B/E—20 to 31 inches; silt loam

2Bt1—31 to 37 inches; very gravelly sandy loam

3Bt2—37 to 40 inches; loamy sand

3C—40 to 60 inches; stratified sand to very gravelly coarse sand

Dissimilar Components

Sconsin soils: 0 to 15 percent of the unit

Major Uses

- Forest land

9197C—Pelissier very cobbly sandy loam, 10 to 30 percent slopes***Component Description*****Pelissier and similar soils**

Extent: 75 to 85 percent of the unit

Geomorphic component: Outwash plains, eskers, and moraines

Slope range: 10 to 30 percent

Texture of the surface layer: Very cobbly sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material: Loamy deposits 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: 3.5 inches

Content of organic matter in the upper 10 inches: 0.8 percent

Typical profile:

Oa—0 to 3 inches; highly decomposed plant material

E—3 to 5 inches; very cobbly sandy loam

Bs1—5 to 13 inches; very cobbly coarse sandy loam

Bs2—13 to 20 inches; very cobbly loamy coarse sand

C1—20 to 60 inches; very cobbly coarse sand

C2—60 to 80 inches; very gravelly coarse sand

Dissimilar Components

Padus soils: 0 to 15 percent of the unit

Pence soils: 0 to 15 percent of the unit

Major Uses

- Forest land, wildlife habitat

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 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 rivers, streams, lakes, reservoirs, and ponds. These areas are covered with water in most years, at least during the period that is warm enough for plants to grow. Many areas are covered throughout the year. Small islands, areas of flood plain, or riverwash may be included.

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. 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.

Cropland Management Considerations

The management concerns affecting the use of the soil map units in the survey area for crops are shown in table 5. 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 6a and 6b. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the tables.

The yields are based mainly on the experience and records of farmers, conservationists, and extension

agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

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 of 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, 2*e*. 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 the yields tables.

Prime Farmland

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. The acreage of high-quality farmland is limited, and the U.S. Department of Agriculture recognizes that government at local, State, and Federal levels, as well as individuals, must encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland soils, as defined by the U.S. Department of Agriculture, are soils that are best suited to food, feed, forage, fiber, and oilseed crops. Such soils have properties that favor the economic production of sustained high yields of crops. The soils need only to be treated and managed by acceptable farming methods. An adequate moisture supply and a sufficiently long growing season are required. Prime farmland soils produce the highest yields with minimal expenditure of energy and economic resources, and farming these soils results in the least damage to the environment (fig. 6).

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



Figure 6.—Brome-grass-alfalfa hay in an area of Ribriver silt loam, 0 to 3 percent slopes. This map unit is prime farmland.

acceptable. The soils have few, if any, rocks and are permeable to water and air. They are not excessively erodible or saturated with water for long periods, and they are not frequently flooded during the growing season or are protected from flooding. Slopes range mainly from 0 to 6 percent.

Soils in which a saturated zone is high in the profile or soils that are subject to flooding may qualify as prime farmland where these limitations are overcome by drainage measures or flood control. Onsite evaluation is necessary to determine the effectiveness of corrective measures. More information about the criteria for prime farmland can be obtained at the local office of the Natural Resources Conservation Service.

A recent trend in land use has been the conversion of prime farmland to urban and industrial uses. The

loss of prime farmland to other uses puts pressure on lands that are less productive than prime farmland.

About 367,329 acres, or about 58 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 7. This list does not constitute a recommendation for a particular land use. On some soils included in the table, measures that overcome limitations are needed. The need for these measures is indicated in parentheses after the map unit name. The location of each map unit is shown on the soil maps. The soil qualities that affect use and management are described in the section "Soil Map Unit Descriptions."

Windbreaks and Environmental Plantings

Windbreaks protect livestock, buildings, and yards from wind and snow. They also protect fruit trees and gardens, and they furnish habitat for wildlife. Several rows of low- and high-growing broadleaf and coniferous trees and shrubs provide the most protection.

Field windbreaks are narrow plantings made at right angles to the prevailing wind and at specific intervals across the field. The interval depends on the erodibility of the soil. Field windbreaks protect cropland and crops from wind, help to keep snow on the fields, and provide food and cover for wildlife.

Environmental plantings help to beautify and screen houses and other buildings and to abate noise. The plants, mostly evergreen shrubs and trees, are closely spaced. To ensure plant survival, a healthy planting stock of suitable species should be planted properly on a well prepared site and maintained in good condition.

Windbreaks are often planted on land that did not originally support trees. Knowledge of how trees perform on such land can be gained only by observing and recording the performance of trees that have been planted and have survived. Many popular windbreak species are not indigenous to the areas in which they are planted.

Each tree or shrub species has certain climatic and physiographic limits. Within these parameters, a tree or shrub may grow well or grow poorly, depending on the characteristics of the soil. Each tree or shrub has definable potential heights in a given physiographic area and under a given climate. Accurate definitions of potential heights are necessary when a windbreak is planned and designed.

Table 8 shows the height that locally grown trees and shrubs are expected to reach in 20 years on various soils. The estimates in this table are based on measurements and observation of established plantings that have been given adequate care. They can be used as a guide in planning windbreaks and screens. Additional information on planning windbreaks and screens and planting and caring for trees and shrubs can be obtained from local offices of the Natural Resources Conservation Service or the Cooperative Extension Service or from a nursery.

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 and Productivity

Forest resources have long been of major importance in Taylor County. In the 1880s, when the county was first being settled, nearly all of the land area was forested. Logging, fires, and agricultural activities, however, have since altered these original forests.

In 1996, about 371,700 acres in the county, or almost 60 percent of the total acreage, was forested, including about 123,900 acres of National Forest (Schmidt, 1996). Approximately 60 percent of the forested acreage is privately owned by farmers, the forest industry, and other private individuals and corporations (Albrecht, 1997).

The composition of the upland woods in Taylor County varies, primarily because of the difference in fertility and available water capacity of the soils. The timber stands are mostly sugar maple, white ash, yellow birch, butternut hickory, and American basswood in areas of silty uplands, where fertility is relatively high and the available water capacity is moderate or high. Freeon, Loyal, Crystal Lake, Antigo, and Sconsin soils are examples of silty upland soils. The timber stands also include red maple, eastern hemlock, northern red oak, and paper birch in areas of loamy upland soils, where the fertility and available water capacity are generally lower than in the silty soils. Some of the loamy upland soils are Newood, Newot, Padus, and Padwood soils. The upland woods in areas of the most droughty and least fertile soils are mostly red maple, paper birch, northern red oak, balsam fir, eastern white pine, and red pine. Pelissier and Pence soils are examples of such soils.

On the somewhat poorly drained soils, red maple is commonly a larger component of the timber stand than sugar maple. Aspen, balsam fir, blue beech, American basswood, yellow birch, and eastern hemlock also are major components of stands on these wetter soils. Magnor, Withee, Poskin, and Comstock soils are somewhat poorly drained.

The wooded swamps are on poorly drained and very poorly drained soils along drainageways and in depressions throughout the county. They commonly support stands of balsam fir, black ash, black spruce,

tamarack, and red maple. Many stands are mostly swamp conifers. Yellow birch and eastern hemlock are in some stands. Along major river bottoms, silver maple and swamp white oak occur as minor components of the stand.

Composition of the forest land by forest type in 1996 was about 8 percent spruce, fir, and other lowland conifers; 15 percent elm, ash, and lowland hardwoods; 1 percent oak; 54 percent maple, basswood, and other upland hardwoods; and 22 percent aspen and birch.

Composition of the forest land by stand-size class in 1996 was about 19 percent sawtimber, 49 percent poletimber, and 32 percent seedlings and saplings. The sawtimber in 1996 was about 5 percent pine, 14 percent other softwoods, 54 percent soft hardwoods, and 27 percent hard hardwoods. Soft hardwood tree species include aspen, red maple, and American basswood. Hard hardwood tree species include oaks, sugar maple, hickories, and ash. The poletimber, seedlings, and saplings in 1996 were about 2 percent pine, 11 percent other softwoods, 63 percent soft hardwoods, and 24 percent hard hardwoods. The trend is towards more sawtimber and fewer seedlings and saplings.

In 1996, about 5,635,000 cords of growing stock, including 963,007,000 board feet of sawtimber, was removed from the forest. This harvest was about 45 percent of the net annual growth of growing stock. Hardwoods, mostly aspen and maple, make up about 76 percent of the harvest (fig. 7).

Management of the forest in Taylor County varies. It should be based on the species in the stand, the suitability of the soils for the species, and the objectives of the landowners. Management should also include controlling erosion, overcoming soil-related equipment limitations, improving the seedling survival rate, minimizing the windthrow of trees on the wetter sites, controlling the growth of competing vegetation, planting trees where natural regeneration is unreliable, harvesting in a timely manner, controlling damage by insects and disease, removing cull trees and undesirable species, maintaining the most productive basal area, preventing woodland fires, and excluding livestock from the woodlands. Management of public lands for maximum timber production is generally tempered by recreational concerns and by considerations of wildlife management, including the kinds of trees that are best suited to habitat for wildlife.

Information about the hazards and limitations that should be considered in areas used as forest land are 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.

Rubby surface.—The word “rubby” 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.



Figure 7.—Trees harvested in an area of Newood sandy loam, 2 to 6 percent slopes, very stony.

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.

Rubby surface.—The word “rubby” 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.

Rubby surface.—The word “rubby” 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.

Rubby surface.—The word “rubby” is in the map unit name.

Cobbly surface.—The word “cobbly” is in the map unit name.

Forest Productivity

Table 14 can help woodland owners or forest managers plan the use of soils for wood crops. Only those soils suitable for wood crops are listed.

The *potential productivity* of merchantable or *common trees* on a soil is expressed as a *site index* and as a *volume* number. The site index is the average height, in feet, that dominant and codominant trees of

a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that woodland managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability.

The *volume*, a number, is the yield likely to be produced by the most important trees. This number, expressed as cubic feet per acre per year, indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are suitable for commercial wood production.

Forest Habitat Types

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

A forest habitat type includes all sites capable of producing similar potential climax plant communities. Each habitat type represents a relatively narrow segment of environmental variation that is characterized by a specific potential for vegetation development.

The habitat type classification system classifies forest plant communities and the sites on which they develop. It groups land units that have a similar capacity to produce vegetation (biological potential). The habitat type system uses the floristic composition of plant communities as an integrated indicator of those environmental factors that affect species reproduction, growth, competition, and community development. Within a class, although a variety of forest cover types may be associated with early and middle successional stages, the ecologically significant results of long-term environmental interactions are similar.

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 they have meaning only in the context of the specific habitat types or groups being compared.

The forest habitat types in Taylor County can be identified and interpreted using the “Field Guide to Forest Habitat Types of Northern Wisconsin,” 2nd edition (Kotar and others, 2001). 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 the occurrence of a habitat type. In table 15, each soil map unit is listed along with the associated dominant or common habitat types. 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*. If, for a given soil, there are no dominant or codominant habitat types, then the most common habitat types are listed, each with an expected frequency of occurrence of 25 to 55 percent.

The following paragraphs provide brief general descriptions of the habitat types in Taylor County. The types are listed generally in order from the poorest and least productive to the most productive.

AVVb—Acer saccharum/Vaccinium angustifolium-Viburnum acerifolium habitat type. The common name is sugar maple/low sweet blueberry-mapleleaf viburnum. The presumed potential climax overstory is dominated by sugar maple, red maple, and northern red oak. Currently, common cover types include any mixture of aspen, paper birch, northern red oak, red maple, sugar maple, and eastern white pine. The dominant ground flora commonly includes grasses and sedges, hazelnut, blackberries, mapleleaf viburnum, bracken fern, wild sarsaparilla, bigleaf aster, ironwood, and red maple and sugar maple seedlings.

Site characteristics include dry-mesic moisture status and medium nutrient status. Trees exhibiting excellent potential productivity on these sites include red pine, eastern white pine, aspen, and paper birch. Also, northern red oak, red maple, and white spruce can exhibit good growth and productivity. Although common, sugar maple generally is of poor quality.

The AVVb habitat type occurs most commonly within the end moraine complex.

ATM—Acer saccharum-Tsuga canadensis/Maianthemum canadense habitat type. The common

name is sugar maple-eastern hemlock/wild lily-of-the-valley. The presumed potential climax overstory is dominated by sugar maple, eastern hemlock, and yellow birch. Currently, common cover types include any mixture of sugar maple, red maple, aspen, paper birch, American basswood, northern red oak, white ash, yellow birch, balsam fir, and eastern hemlock. The dominant ground flora commonly includes grasses and sedges, sugar maple seedlings, hazelnut, bush honeysuckle, bracken fern, spinulose shield fern, lady fern, wild sarsaparilla, wild lily-of-the-valley, bigleaf aster, beadlily, and starflower.

Site characteristics include mesic moisture status and medium nutrient status. Trees exhibiting good to excellent productive and competitive potential on these sites include sugar maple, American basswood, white ash, yellow birch, and eastern hemlock. Others demonstrating excellent productivity but limited competitive abilities include red maple, northern red oak, and eastern white pine. Following severe disturbance, aspen and paper birch can demonstrate excellent productivity as pioneers.

The ATM habitat type is very common on forest land within the end moraine complex. It can also occur within the northwestern loess plain and the southeastern till plain.

AOCa—Acer saccharum/Osmorhiza claytonii-Caulophyllum thalictroides habitat type. The common name is sugar maple/sweet cicely-blue cohosh. The presumed potential climax overstory is dominated by sugar maple. Currently, most stands are dominated by sugar maple and American basswood and some aspen. Common overstory associates include yellow birch, eastern hemlock, white ash, red maple, and black cherry. The dominant ground flora commonly includes grasses and sedges, sugar maple seedlings, hazelnut, lady fern, spinulose shield fern, bigleaf aster, wild sarsaparilla, trilliums, sweet cicely, blue cohosh, and gooseberries.

Site characteristics include mesic moisture status and rich nutrient status. 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.

The AOCa habitat type is somewhat common on forest land throughout the county. It is most common within the end moraine complex and the northwestern loess plain.

AH—Acer saccharum/Hydrophyllum virginianum habitat type. The common name is sugar maple/Virginia waterleaf. The presumed potential climax overstory is dominated by sugar maple. Currently, most stands are dominated by sugar maple and

American basswood and some aspen. Common overstory associates include northern red oak, white ash, red maple, yellow birch, and eastern hemlock. The dominant ground flora commonly includes grasses and sedges, sugar maple seedlings, lady fern, spinulose shield fern, maidenhair fern, Virginia waterleaf, sweet cicely, blue cohosh, bloodroot, violets, trilliums, bigleaf aster, gooseberries, and nettles.

Site characteristics include mesic moisture status and rich nutrient status. 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.

The AH habitat type is somewhat common on forest land throughout the county. It is most common within the southeastern till plain and the northwestern loess plain.

AHI—Acer saccharum/Hydrophyllum virginianum-Impatiens capensis habitat type. The common name is sugar maple/Virginia waterleaf-jewelweed. The presumed potential climax overstory is dominated by sugar maple. Currently, common cover types include any mixture of sugar maple, red maple, American basswood, and aspen. Common overstory associates include yellow birch, elm, black ash, northern red oak, and white pine. The dominant ground flora commonly includes grasses and sedges, sugar maple seedlings, lady fern, spinulose shield fern, Virginia waterleaf, wild geranium, trilliums, bloodroot, and gooseberries.

Site characteristics include wet-mesic to mesic moisture status and rich nutrient status. Although the characteristic dampness can limit tree growth and productivity, most of the commonly occurring tree species can exhibit very good potential productivity. Sugar maple growth and quality are good.

The AHI habitat type can occur on forested land throughout the county, most commonly within the southeastern till plain and the northwestern loess plain.

ACal—Acer saccharum/Caulophyllum thalictroides-Impatiens capensis habitat type. The common name is sugar maple/blue cohosh-jewelweed. The presumed potential climax overstory is dominated by sugar maple. Currently, most stands are dominated by sugar maple, red maple, American basswood, and some aspen. Common overstory associates include yellow birch, black ash, green ash, white ash, and hemlock. The dominant ground flora commonly includes grasses and sedges, sugar maple seedlings, lady fern, spinulose shield fern, blue cohosh, sweet cicely, jack-in-the-pulpit, trilliums, and gooseberries.

Site characteristics include wet-mesic to mesic moisture status and rich nutrient status. Although the

characteristic dampness can limit tree growth and productivity, most of the commonly occurring tree species can exhibit very good potential productivity. Sugar maple growth and quality are good.

The ACAl habitat type can occur on forested land throughout the county, most commonly within the northwestern loess plain and the end moraine complex.

ATAOn—Acer saccharum-Tsuga canadensis/Athyrium filix-femina-Onoclea sensibilis habitat type. The common name is sugar maple-eastern hemlock/lady fern-sensitive fern. The presumed potential climax overstory is dominated by sugar maple, red maple, yellow birch, and eastern hemlock. Currently, common cover types include any mixture of red maple, sugar maple, yellow birch, eastern hemlock, American basswood, black ash, green ash, and aspen. The dominant ground flora typically includes grasses and sedges, red maple and sugar maple seedlings, hazelnut, blackberries, lady fern, spinulose shield fern, sensitive fern, horsetails, jewelweed, and bigleaf aster.

Site characteristics include wet-mesic to mesic moisture status and medium or rich nutrient status. Although the characteristic dampness can limit tree growth and productivity, most of the commonly occurring tree species can exhibit good to excellent potential productivity. Sugar maple growth and quality are only moderate.

The ATAOn habitat type can occur on forested land throughout the county.

ArAbCo—Acer rubrum-Abies balsamea/Cornus canadensis habitat type. The common name is red maple-balsam fir/bunchberry. The presumed potential climax overstory is dominated by red maple, balsam fir, white spruce, and hemlock. Currently, most stands are dominated by aspen or red maple; the only common associate is balsam fir. The dominant ground flora commonly includes grasses and sedges, hazelnut, blackberries, gooseberries, bracken fern, spinulose shield fern, lady fern, interrupted fern, horsetails, bunchberry, wild sarsaparilla, wild lily-of-the-valley, bigleaf aster, and red maple seedlings.

Site characteristics include wet-mesic to mesic moisture status and medium nutrient status. Although the characteristic dampness can limit tree growth and productivity, most of the commonly occurring tree species can exhibit good potential productivity. However, mature stands are very susceptible to blowdown. Areas of this habitat type are not ideal for the management of northern hardwoods because the growth and quality of sugar maple are limited.

The ArAbCo habitat type is somewhat common on forested land within the county. It is most common within the northwestern loess plain.

TMC—Tsuga canadensis/Maianthemum canadense-Coptis groenlandica habitat type. The common name is eastern hemlock/wild lily-of-the-valley-goldthread. The presumed potential climax overstory is dominated by eastern hemlock, yellow birch, red maple, and sugar maple. Currently, common cover types include any mixture of red maple, balsam fir, aspen, paper birch, sugar maple, yellow birch, and eastern hemlock. The dominant ground flora commonly includes grasses and sedges, sugar maple and red maple seedlings, balsam fir seedlings, hazelnut, bracken fern, clubmosses, bunchberry, wild lily-of-the-valley, wild sarsaparilla, bigleaf aster, beadlily, and starflower.

Site characteristics include wet-mesic to mesic moisture status and medium nutrient status. Although the characteristic dampness can limit tree growth and productivity, most of the commonly occurring tree species can exhibit good potential productivity. Areas of this habitat type are not ideal for the management of northern hardwoods because the growth and quality of sugar maple are limited.

The TMC habitat type is somewhat common on forested land throughout the county. It is most common within the end moraine complex.

Lowland habitat types. No forested lowland habitat types have been defined and characterized. Currently, common lowland cover types include any mixture of northern whitecedar, tamarack, black spruce, balsam fir, black ash, red 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 (Lmin), nonacid organic soil lowland (Lnorg), and acid organic soil lowland (Laorg). Forested lowlands are very common throughout the county.

Recreation

The soils of the survey area are rated in tables 16a and 16b 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 16a and 16b 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 (fig. 8). 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 17, 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



Figure 8.—A portion of the Ice Age Trail near Rib Lake in an area of Newood-Pence complex, 6 to 15 percent slopes, very stony.

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, indiagrass, blueberry, goldenrod, lambsquarters, dandelions, blackberry, ragweed, wheatgrass, 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 (fig. 9). 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



Figure 9.—A typical example of the vegetation in an area of Loxley and Beseman soils, 0 to 1 percent slopes.

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, black bear, and moose.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas (fig. 10). 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, agricultural waste management, 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



Figure 10.—Reed canarygrass (foreground) and tag alder (background) in an area of Lupton and Cathro soils, 0 to 1 percent slopes. These soils provide good habitat for wetland wildlife.

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; evaluate alternative sites for waste management facilities; 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 18a and 18b 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 19a and 19b 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 20a and 20b 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 20a, 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.

The soils are rated *good*, *fair*, or *poor* as potential sources of reclamation material, roadfill, and topsoil. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of reclamation material, roadfill, or topsoil. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In 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.

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, rapid infiltration of wastewater, and slow rate treatment 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 saturated zone, 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 wet zone in the soil profile, 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 saturated zone, 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 wet zone in the soil profile, 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 saturated zone, 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 saturated zone, 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 saturated zone, ponding, flooding, depth to bedrock or a cemented pan, stones, and cobbles affect design and construction. Permanently frozen soils are unsuitable for waste treatment.

Rapid infiltration of wastewater is a process in which wastewater applied in a level basin at a rate of 4 to 120 inches per week percolates through the soil. The wastewater may eventually reach the ground water. The application rate commonly exceeds the rate needed for irrigation of cropland. Vegetation is not a necessary part of the treatment; hence, the basins may or may not be vegetated. The thickness of the soil material needed for proper treatment of the wastewater is more than 72 inches. As a result, geologic and hydrologic investigation is needed to ensure proper design and performance and to determine the risk of ground-water pollution.

The ratings in the table are based on the soil properties that affect the risk of pollution and the design, construction, and performance of the system. Depth to a saturated zone, ponding, flooding, and depth to bedrock or a cemented pan affect the risk of pollution and the design and construction of the system. Slope, stones, and cobbles also affect design and construction. Permeability and reaction affect performance. Permanently frozen soils are unsuitable for waste treatment.

Slow rate treatment of wastewater is a process in which wastewater is applied to land at a rate normally between 0.5 inch and 4.0 inches per week. The application rate commonly exceeds the rate needed for irrigation of cropland. The applied wastewater is treated as it moves through the soil. Much of the treated water may percolate to the ground water, and some enters the atmosphere through evapotranspiration. The applied water generally is not allowed to run off the surface. Waterlogging is prevented either through control of the application rate or through the use of tile drains, or both.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, and the application of waste. The properties that affect absorption include the sodium adsorption ratio, depth to a saturated zone,

ponding, available water capacity, permeability, depth to bedrock or a cemented pan, reaction, the cation-exchange capacity, and slope. Reaction, the sodium adsorption ratio, salinity, and bulk density affect plant growth and microbial activity. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood of wind erosion or water erosion. Stones, cobbles, a wet zone in the soil profile, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Water Management

Table 22 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 (fig. 11). 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



Figure 11.—An excavated pond in an area of Rib silt loam, 0 to 2 percent slopes. In addition to their esthetic value, such ponds provide water for wildlife.

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.

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 23 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 (fig. 12). "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

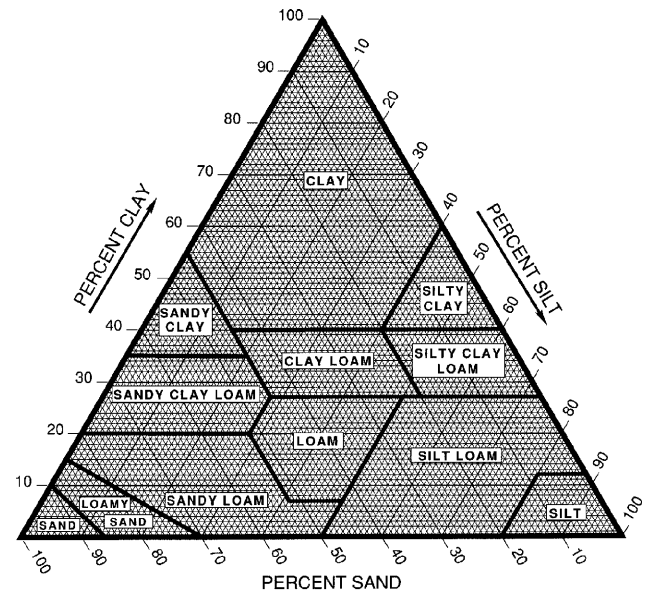


Figure 12.—Percentages of clay, silt, and sand in the basic USDA soil textural classes.

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 oven-dry 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 24 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 24, 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 (oven-dry) 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 24, 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 24 as the K factor (K_w and K_f) 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 K_w indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor K_f 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 25 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 26 gives estimates of soil moisture for each soil 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 soil 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 26, *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 27 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 28 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 29 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. The table indicates the hardness of the restrictive layer, which significantly affects the ease of excavation. *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.

Engineering Index Test Data

Table 30 shows laboratory test data for several pedons sampled at carefully selected sites in the survey area. The pedons are representative of the series described in the section "Soil Series and Their Morphology."

The testing methods generally are those of the American Association of State Highway and Transportation Officials (AASHTO) or the American Society for Testing and Materials (ASTM).

The tests and methods are Mechanical analysis—T 88 (AASHTO), D 422 (ASTM), D 2217 (ASTM); Liquid limit—T 89 (AASHTO), D 4318 (ASTM); Plasticity index—T 90 (AASHTO), D 4318 (ASTM); AASHTO classification—M 145 (AASHTO), D 3282 (ASTM); and Unified classification—D 2487-00 (ASTM).

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1998 and 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 31 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 Spodosol.

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 Orthods (*Orth*, meaning common, plus *od*, from Spodosol).

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 Haplorthods (*Hapl*, meaning minimal horization, plus *orthod*, the suborder of the Spodosols that have a horizon in which aluminum, iron, and organic carbon have accumulated).

SUBGROUP. Each great group has a typical subgroup. Other subgroups are intergrades or extragrades. The typical 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. The adjective *Typic* identifies the subgroup that

typifies the great group. An example is Typic Haplorthods.

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 sandy, mixed, frigid Typic Haplorthods.

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.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the "Soil Survey Manual" (Soil Survey Division Staff, 1993) and in the "Field Book for Describing and Sampling Soils" (Schoeneberger and others, 2002). Many of the technical terms used in the descriptions are defined in "Soil Taxonomy" (Soil Survey Staff, 1999) and in "Keys to Soil Taxonomy" (Soil Survey Staff, 1998). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Aftad Series

Typical Pedon

Aftad fine sandy loam, 2 to 6 percent slopes, 1,520 feet south and 2,270 feet west of the northeast

corner of sec. 26, T. 32 N., R. 1 E., Taylor County, Wisconsin:

- Ap**—0 to 10 inches; very dark grayish brown (10YR 3/2) fine sandy loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; many very fine and fine and few medium and coarse roots; about 2 percent gravel; moderately acid; abrupt smooth boundary.
- E/B**—10 to 29 inches; about 60 percent brown (10YR 5/3) fine sandy loam (E), very pale brown (10YR 7/3) dry; weak medium platy structure; friable; tongues into or surrounds remnants of dark yellowish brown (10YR 4/4) fine sandy loam (Bt); moderate medium subangular blocky structure; friable; common very fine and fine roots; common fine prominent (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; slightly acid; clear wavy boundary.
- B/E**—29 to 36 inches; about 60 percent dark yellowish brown (10YR 4/4) fine sandy loam (Bt); moderate medium subangular blocky structure; friable; few faint brown (10YR 4/3) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) fine sandy loam (E), very pale brown (10YR 7/3) dry; moderate medium subangular blocky structure; friable; few very fine and fine roots; common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 5 percent gravel; very strongly acid; clear smooth boundary.
- Bt**—36 to 41 inches; dark yellowish brown (10YR 4/4) fine sandy loam; moderate medium subangular blocky structure; friable; few faint brown (10YR 4/3) clay films on faces of peds; common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 5 percent gravel; few thin strata of very fine and fine sand; very strongly acid; clear wavy boundary.
- C1**—41 to 50 inches; brown (7.5YR 5/4) fine sand; thin strata of very fine sand; massive; very friable; common medium distinct strong brown (7.5YR 4/6) masses of iron accumulation; moderately acid; gradual wavy boundary.
- C2**—50 to 60 inches; brown (7.5YR 5/4 and 4/4), stratified fine sand, very fine sand, very fine sandy loam, and silt loam; massive; friable; few fine prominent dark yellowish brown (10YR 4/6) masses of iron accumulation; slightly acid.

Range in Characteristics

Depth to stratified lacustrine deposits: 20 to 41 inches

Ap horizon:

Hue—7.5YR or 10YR
Value—3 or 4

Chroma—2 or 3
Texture—fine sandy loam

A horizon (if it occurs):

Hue—7.5YR or 10YR
Value—2 or 3
Chroma—1 or 2
Texture—fine sandy loam

E horizon and E part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—very fine sandy loam, fine sandy loam, sandy loam, loam, loamy sand, or loamy fine sand

Bt horizon and Bt part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 or 5
Chroma—4 to 6
Texture—very fine sandy loam, fine sandy loam, sandy loam, or loam; thin strata of coarser or finer textures in the lower part in some pedons

C horizon:

Hue—5YR, 7.5YR, or 10YR
Value—3 to 6
Chroma—4 to 6
Texture—fine sand, very fine sand, very fine sandy loam, loam, fine sandy loam, sandy loam, or silt loam; thin strata of coarser or finer textures

Almena Series

Typical Pedon

Almena silt loam, 0 to 3 percent slopes, 100 feet north and 2,525 feet east of the southwest corner of sec. 36, T. 30 N., R. 2 W., Taylor County, Wisconsin:

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; weak medium granular structure; friable; common fine and medium roots; moderately acid; abrupt smooth boundary.

E/B—9 to 13 inches; about 70 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; weak medium platy structure; friable; tongues into or surrounds remnants of dark yellowish brown (10YR 4/4) silt loam (Bt); weak fine subangular blocky structure; friable; few fine roots; few fine faint and distinct grayish brown (10YR 5/2) iron depletions and common medium distinct yellowish brown (10YR 5/6) masses of iron accumulation;

about 1 percent gravel; very strongly acid; clear smooth boundary.

B/E—13 to 21 inches; about 60 percent dark yellowish brown (10YR 4/4) silt loam (Bt); moderate fine subangular blocky structure; friable; few distinct brown (7.5YR 4/4) clay films on faces of pedis; penetrated by tongues of brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; weak thin platy structure; friable; few fine roots; common medium faint and distinct grayish brown (10YR 5/2) iron depletions and common medium distinct and prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 1 percent gravel; very strongly acid; clear wavy boundary.

Bt1—21 to 30 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; friable; common distinct brown (7.5YR 4/4) clay films on faces of pedis; common medium distinct grayish brown (10YR 5/2) iron depletions and strong brown (7.5YR 5/6) masses of iron accumulation; about 1 percent gravel; very strongly acid; clear wavy boundary.

Bt2—30 to 42 inches; brown (7.5YR 4/4) silt loam; moderate medium subangular blocky structure; friable; common distinct strong brown (7.5YR 4/6) clay films on faces of pedis; few fine distinct brown (7.5YR 5/2) iron depletions and common fine distinct strong brown (7.5YR 5/6) masses of iron accumulation; about 3 percent gravel; very strongly acid; clear wavy boundary.

2C—42 to 60 inches; reddish brown (5YR 4/4) sandy loam; massive; friable; common medium distinct yellowish red (5YR 5/6) masses of iron accumulation; about 14 percent gravel; strongly acid.

Range in Characteristics

Thickness of the silty mantle: 36 to 60 inches

Content of gravel: 0 to 10 percent in the silty mantle and 3 to 35 percent in the till

Content of cobbles: 0 to 5 percent throughout the profile

Other features: Some pedons have a 2Cd horizon below a depth of 60 inches.

Ap horizon:

Hue—10YR

Value—2 to 4

Chroma—2 or 3

Texture—silt loam

A horizon (if it occurs):

Hue—10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam

E part of glossic horizon:

Hue—10YR

Value—4 to 6

Chroma—2 or 3

Texture—silt loam

Bt horizon and Bt part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—silt loam

2C horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—4 to 6

Chroma—3 to 6

Texture—sandy loam, loam, gravelly sandy loam, or gravelly loam

Antigo Series

Typical Pedon

Antigo silt loam, 345 feet north and 1,270 feet west of the southeast corner of sec. 16, T. 31 N., R. 11 E., Langlade County, Wisconsin (a representative pedon of Antigo silt loam in Taylor County is in the SE¹/₄SW¹/₄ of sec. 30, T. 32 N., R. 2 W.):

Ap—0 to 9 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; moderate fine subangular blocky structure; very friable; many fine roots; about 6 percent gravel and 2 percent cobbles; neutral; abrupt smooth boundary.

E—9 to 12 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; weak thin platy structure; very friable; common fine roots; about 1 percent gravel and 1 percent cobbles; slightly acid; clear wavy boundary.

B/E—12 to 19 inches; about 70 percent dark yellowish brown (10YR 4/4) silt loam (Bt); moderate very fine angular blocky structure; friable; few distinct brown (7.5YR 4/4) clay films on faces of pedis; penetrated by tongues of brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; weak thin platy structure; very friable; common fine roots; very strongly acid; clear irregular boundary.

Bt1—19 to 28 inches; dark yellowish brown (10YR 4/4) silt loam; moderate fine angular blocky structure; friable; common fine roots; common distinct brown (7.5YR 4/4) clay films on faces of pedis; common

coatings of pale brown (10YR 6/3) clean silt and very fine sand grains on vertical faces of peds; about 1 percent gravel and 1 percent cobbles; very strongly acid; abrupt wavy boundary.

2Bt2—28 to 31 inches; dark yellowish brown (10YR 4/4) loam; moderate medium subangular blocky structure; friable; common fine roots; common prominent dark reddish brown (5YR 3/4) clay films on faces of peds and in pores; common coatings of pale brown (10YR 6/3) clean silt and sand grains primarily on vertical faces of peds; about 11 percent gravel and 2 percent cobbles; very strongly acid; abrupt wavy boundary.

2Bt3—31 to 33 inches; brown (7.5YR 4/4) very gravelly sandy loam; weak coarse subangular blocky structure; friable; few fine roots; few distinct dark reddish brown (5YR 3/4) clay bridges between mineral grains; about 34 percent gravel and 2 percent cobbles; very strongly acid; abrupt wavy boundary.

3C—33 to 60 inches; brown (7.5YR 5/4), stratified sand and gravelly sand; single grain; loose; about 16 percent gravel and 2 percent cobbles; few fine roots; strongly acid.

Range in Characteristics

Thickness of the silty mantle: 12 to 40 inches

Content of gravel: 0 to 10 percent in the silty mantle, 0 to 40 percent in the loamy subsoil, and 3 to 45 percent as a weighted average in the sandy outwash (0 to 65 percent in individual strata)

Content of cobbles: 0 to 5 percent throughout the profile

Other features: Some pedons have a 3Bt horizon.

Ap horizon:

Hue—7.5YR or 10YR

Value—3 to 5

Chroma—2 or 3

Texture—silt loam

A horizon (if it occurs):

Hue—7.5YR or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam

E part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—silt loam

Bt horizon and Bt part of glossic horizon:

Hue—7.5YR or 10YR

Value—3 to 5

Chroma—4

Texture—silt loam

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR

Value—3 to 6

Chroma—4 to 6

Texture—loam, sandy loam, or fine sandy loam or the gravelly or very gravelly analogs of these textures

3C horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Auburndale Series

Typical Pedon

Auburndale silt loam, 100 feet south and 100 feet east of the northwest corner of sec. 15, T. 29 N., R. 4 W., Clark County, Wisconsin (a representative pedon of Auburndale silt loam in Taylor County is in the NE¹/₄NW¹/₄ of sec. 14, T. 30 N., R. 1 E.):

Ap—0 to 7 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine and medium granular structure; friable; common very fine and fine roots; very strongly acid; clear smooth boundary.

Eg—7 to 14 inches; grayish brown (10YR 5/2) silt loam, light gray (10YR 7/2) dry; weak medium platy structure; friable; common very fine and fine roots; many medium prominent strong brown (7.5YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg1—14 to 20 inches; light brownish gray (10YR 6/2) silt loam; moderate fine subangular blocky structure; friable; few fine roots; few faint grayish brown (10YR 5/2) clay films on faces of some peds; many medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg2—20 to 29 inches; light brownish gray (10YR 6/2) silt loam; moderate fine subangular blocky structure; friable; common very fine and fine roots; few faint grayish brown (10YR 5/2) clay films on faces of peds; many medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; strongly acid; clear wavy boundary.

Btg3—29 to 41 inches; grayish brown (10YR 5/2) silt

loam; moderate fine subangular blocky structure; friable; few fine roots; few faint dark grayish brown (10YR 4/2) clay films on faces of peds; many medium prominent strong brown (7.5YR 5/8) and common fine prominent yellowish brown (10YR 5/8) masses of iron accumulation; moderately acid; clear wavy boundary.

2Btg4—41 to 53 inches; grayish brown (10YR 5/2) loam; weak medium and coarse subangular blocky structure; friable; few fine roots; few faint dark grayish brown (10YR 4/2) clay films on faces of some peds; many coarse prominent reddish yellow (7.5YR 6/8) and common medium prominent yellowish red (5YR 5/6) masses of iron accumulation; about 5 percent gravel; moderately acid; gradual wavy boundary.

2C—53 to 60 inches; dark brown (7.5YR 3/4) sandy loam; massive; friable; few medium distinct strong brown (7.5YR 5/8) masses of iron accumulation; about 8 percent gravel; slightly acid.

Range in Characteristics

Thickness of the silty mantle: 36 to 60 inches

Content of gravel: 0 to 10 percent in the silty mantle and 5 to 35 percent in the till

Content of cobbles: 0 to 3 percent throughout the profile

Other features: Some pedons have a 2Cd horizon below a depth of 60 inches.

Ap horizon:

Hue—7.5YR or 10YR

Value—2 or 3

Chroma—1 to 3

Texture—silt loam

A horizon (if it occurs):

Hue—7.5YR or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam

Eg horizon:

Hue—10YR or 2.5Y

Value—4 to 6

Chroma—1 or 2

Texture—silt loam

Btg horizon:

Hue—7.5YR, 10YR, or 2.5Y

Value—4 to 6

Chroma—1 or 2

Texture—silt loam

2Bt or 2Btg horizon:

Hue—2.5YR, 5YR, 7.5YR, or 10YR

Value—3 to 6

Chroma—2 to 6

Texture—sandy loam, loam, gravelly sandy loam, or gravelly loam

2C or 2Cg horizon:

Hue—2.5YR, 5YR, 7.5YR, or 10YR

Value—3 to 6

Chroma—2 to 6

Texture—sandy loam, loam, gravelly sandy loam, or gravelly loam

Barronett Series

Typical Pedon

Barronett silt loam, 2,060 feet east and 1,460 feet north of the southwest corner of sec. 22, T. 35 N., R. 15 W., Polk County, Wisconsin (a representative pedon of Barronett silt loam in Taylor County is in the SW¹/₄NE¹/₄ of sec. 36, T. 33 N., R. 1 E.):

Ap—0 to 9 inches; black (10YR 2/1) silt loam, dark grayish brown (10YR 4/2) dry; weak fine subangular blocky structure; friable; common fine roots; neutral; abrupt smooth boundary.

Eg—9 to 16 inches; gray (10YR 6/1) silt loam; weak thick platy structure parting to weak fine subangular blocky; friable; few fine roots; few fine prominent reddish yellow (7.5YR 6/8) masses of iron accumulation; few earthworm casts; moderately acid; clear wavy boundary.

Btg1—16 to 23 inches; gray (10YR 6/1) silt loam; weak fine subangular blocky structure; friable; few fine roots; common clay films on faces of peds and in pores; common fine prominent reddish yellow (7.5YR 6/8) and few fine prominent red (2.5YR 4/6) masses of iron accumulation; moderately acid; clear wavy boundary.

Btg2—23 to 34 inches; gray (10YR 6/1) silt loam; weak coarse subangular blocky structure; friable; few fine roots; few clay films on faces of peds and in pores; few fine prominent yellowish red (5YR 4/6) and yellowish brown (10YR 5/6) masses of iron accumulation; moderately acid; clear wavy boundary.

Cg—34 to 60 inches; light brownish gray (10YR 6/2), stratified silt and very fine sand; massive breaking to weak thick plates along depositional strata; very friable; few fine prominent yellowish red (5YR 4/6) and distinct yellowish brown (10YR 5/6) masses of iron accumulation; slightly acid.

Range in Characteristics

Depth to the base of the argillic horizon: 25 to 45 inches

Ap or A horizon:

Hue—10YR or 2.5Y
 Value—2 or 3
 Chroma—1 or 2
 Texture—silt loam

Eg horizon:

Hue—10YR or 2.5Y
 Value—4 to 6
 Chroma—1 or 2
 Texture—silt loam

Btg horizon:

Hue—10YR, 2.5Y, 5Y, or 5G
 Value—4 to 6
 Chroma—1 or 2
 Texture—silt loam or silty clay loam; strata of silt, very fine sand, or fine sand in the lower part in some pedons

C or Cg horizon:

Hue—5YR, 7.5YR, 10YR, 2.5Y, or 5Y
 Value—4 to 6
 Chroma—1 to 3
 Texture—stratified very fine sand, very fine sandy loam, loam, or silt loam; thin strata of silty clay loam, silt, and fine sand

Beseman Series***Typical Pedon***

Beseman peat, 1,995 feet west and 1,200 feet south of the northeast corner of sec. 28, T. 38 N., R. 13 E., Forest County, Wisconsin (a representative pedon of Beseman peat in Taylor County is in the SE¹/₄SE¹/₄ of sec. 6, T. 32 N., R. 2 E.):

- Oi—0 to 12 inches; peat, dark brown (10YR 3/3) broken face and rubbed; about 90 percent fiber, 50 percent rubbed; weak coarse subangular blocky structure; very friable; many fine roots; fibers are primarily sphagnum moss; extremely acid (pH 4.0 in water 1:1); clear wavy boundary.
- Oa1—12 to 22 inches; muck, dark reddish brown (5YR 2.5/2) broken face and rubbed; about 45 percent fiber, 5 percent rubbed; weak coarse subangular blocky structure; friable; few fine roots; fibers are primarily herbaceous; extremely acid (pH 4.0 in water 1:1); gradual wavy boundary.
- Oa2—22 to 36 inches; muck, black (5YR 2.5/1) broken face and rubbed; about 40 percent fiber, 5 percent rubbed; moderate coarse subangular blocky structure; friable; few fine roots; fibers are primarily

herbaceous; about 10 percent mineral material; extremely acid (pH 4.0 in water 1:1); abrupt wavy boundary.

- Cg—36 to 60 inches; dark gray (5Y 4/1) silt loam; massive; friable; about 3 percent gravel; few highly decomposed root fibers in channels; very strongly acid.

Range in Characteristics

Thickness of the organic material: 16 to 51 inches

Kind of organic material: Upper layer—peat; lower layers—dominantly muck; thin layers of mucky peat or peat in some pedons

Oi horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—2 or 3
 Chroma—2 or 3
 Texture—peat

Oa horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—2 or 3
 Chroma—1 or 2
 Texture—muck

C or Cg horizon:

Hue—5YR, 7.5YR, 10YR, 2.5Y, or 5Y
 Value—4 to 7
 Chroma—1 to 3
 Texture—silt loam, loam, very fine sandy loam, fine sandy loam, sandy loam, sandy clay loam, clay loam, or silty clay loam

Blackriver Series***Typical Pedon***

Blackriver silt loam, 1 to 6 percent slopes, 120 feet south and 1,950 feet east of the northwest corner of sec. 6, T. 30 N., R. 1 E., Taylor County, Wisconsin:

- Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; moderate fine granular structure; friable; many very fine and fine roots; about 2 percent gravel; slightly acid; abrupt smooth boundary.
- E/B—9 to 18 inches; about 70 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate thin platy structure; friable; tonguing into and surrounding remnants of dark yellowish brown (10YR 4/4) silt loam (Bt); moderate very fine subangular blocky structure; friable; common very fine and fine roots; few fine prominent strong

brown (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; slightly acid; gradual wavy boundary.

B/E—18 to 25 inches; about 70 percent dark yellowish brown (10YR 4/4) silt loam (Bt); moderate very fine subangular blocky structure; friable; few faint dark yellowish brown (10YR 3/4) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate thin platy structure; friable; few very fine roots; common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; moderately acid; gradual wavy boundary.

Bt1—25 to 42 inches; dark yellowish brown (10YR 4/4) silt loam; moderate fine subangular blocky structure; friable; few very fine roots; common faint dark yellowish brown (10YR 3/4) clay films on faces of peds; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; strongly acid; clear wavy boundary.

Bt2—42 to 48 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; friable; common faint dark yellowish brown (10YR 3/4) clay films on faces of peds; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and few fine distinct grayish brown (10YR 5/2) iron depletions; about 3 percent gravel; strongly acid; clear wavy boundary.

2Bt3—48 to 52 inches; brown (7.5YR 4/4) sandy loam; weak medium subangular blocky structure; very friable; few faint dark brown (7.5YR 3/4) clay films on faces of peds; about 5 percent gravel; moderately acid; clear wavy boundary.

3C—52 to 60 inches; yellowish brown (10YR 5/4) sand; a few thin strata of gravelly sand; single grain; loose; about 5 percent gravel as an average; slightly acid.

Range in Characteristics

Thickness of the silty mantle: 40 to 60 inches

Content of gravel: 0 to 5 percent in the silty mantle, 0 to 40 percent in the loamy subsoil, and 3 to 45 percent as a weighted average in the sandy outwash (0 to 65 percent in individual strata)

Content of cobbles: 0 to 5 percent in the silty mantle and 0 to 10 percent in the loamy alluvium and in the substratum

Ap horizon:

Hue—7.5YR or 10YR

Value—3 or 4

Chroma—2 or 3

Texture—silt loam

A horizon (if it occurs):

Hue—7.5YR or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam

E part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—silt loam

Bt horizon and Bt part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—4 to 6

Texture—silt loam

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR

Value—3 to 6

Chroma—4 to 6

Texture—loam, sandy loam, or fine sandy loam or the gravelly analogs of these textures

3C horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Brander Series

Typical Pedon

Brander silt loam, 2,500 feet south and 1,000 feet west of the northeast corner of sec. 8, T. 29 N., R. 2 W., Clark County, Wisconsin (a representative pedon of Brander silt loam in Taylor County is in the NE¹/₄NE¹/₄ of sec. 7, T. 30 N., R. 1 E.):

Ap—0 to 10 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many very fine and fine roots; moderately acid; abrupt smooth boundary.

E/B—10 to 17 inches; about 70 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; tonguing into and surrounding remnants of yellowish brown

- (10YR 5/4) silt loam (Bt); moderate medium subangular blocky structure; friable; common very fine and fine roots; about 1 percent gravel; moderately acid; gradual wavy boundary.
- B/E—17 to 22 inches; about 60 percent yellowish brown (10YR 5/4) silt loam (Bt); moderate medium subangular blocky structure; friable; few faint dark yellowish brown (10YR 4/4) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; common very fine and fine roots; about 1 percent gravel; strongly acid; gradual wavy boundary.
- Bt1—22 to 29 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; friable; few very fine and fine roots; few distinct brown (7.5YR 4/4) clay films on faces of peds; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 1 percent gravel; very strongly acid; clear wavy boundary.
- Bt2—29 to 32 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable; few very fine and fine roots; few distinct brown (7.5YR 4/4) clay films on faces of peds; common medium prominent strong brown (7.5YR 5/8) masses of iron accumulation and few fine distinct grayish brown (10YR 5/2) iron depletions; about 2 percent gravel; very strongly acid; clear wavy boundary.
- 2Bt3—32 to 35 inches; brown (7.5YR 4/4) gravelly loam; moderate medium subangular blocky structure; friable; few fine roots; few faint dark brown (7.5YR 3/4) clay films on faces of peds; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; about 16 percent gravel; strongly acid; clear wavy boundary.
- 3C—35 to 60 inches; yellowish brown (10YR 5/4), stratified gravelly coarse sand and coarse sand; single grain; loose; few fine faint strong brown (7.5YR 5/6) masses of iron accumulation; about 20 percent gravel as an average; moderately acid.

Range in Characteristics

- Thickness of the silty mantle:* 20 to 40 inches
- Content of gravel:* 0 to 5 percent in the silty mantle, 0 to 40 percent in the loamy subsoil, and 3 to 45 percent as a weighted average in the sandy outwash (0 to 65 percent in individual strata)
- Content of cobbles:* 0 to 5 percent throughout the profile
- Ap horizon:*
Hue—7.5YR or 10YR
Value—3 to 5

- Chroma—2 or 3
Texture—silt loam

- A horizon (if it occurs):*
Hue—7.5YR or 10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

- E part of glossic horizon:*
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—silt loam

- Bt horizon and Bt part of glossic horizon:*
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—4 to 6
Texture—silt loam

- 2Bt horizon:*
Hue—5YR, 7.5YR, or 10YR
Value—3 to 6
Chroma—4 to 6
Texture—loam or sandy loam or the gravelly or very gravelly analogs of these textures

- 3C horizon:*
Hue—5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Brill Series

Typical Pedon

Brill silt loam, 2,340 feet south and 1,040 feet west of the northeast corner of sec. 16, T. 35 N., R. 10 W., Barron County, Wisconsin (a representative pedon of Brill silt loam in Taylor County is in the SE¹/₄SW¹/₄ of sec. 5, T. 30 N., R. 1 E.):

- Ap—0 to 7 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; common fine roots; slightly acid; abrupt smooth boundary.
- E—7 to 11 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; common fine roots; slightly acid; clear wavy boundary.
- E/B—11 to 19 inches; about 60 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; tonguing

into and surrounding remnants of dark yellowish brown (10YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; few faint dark brown (10YR 3/3) clay films on faces of peds; few fine roots; moderately acid; clear wavy boundary.

Bt1—19 to 34 inches; brown (7.5YR 4/4) silt loam; moderate medium subangular blocky structure; friable; few fine roots; few distinct dark brown (10YR 3/3) clay films on faces of peds; few fine prominent yellowish brown (10YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary.

2Bt2—34 to 38 inches; brown (7.5YR 4/4) loam; moderate coarse subangular blocky structure; friable; few fine roots; few distinct dark brown (10YR 3/3) clay films on faces of peds; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; about 3 percent gravel; strongly acid; clear smooth boundary.

3C—38 to 60 inches; yellowish red (5YR 4/6), stratified gravelly sand and sand; single grain; loose; about 25 percent gravel as an average; very strongly acid.

Range in Characteristics

Thickness of the silty mantle: 20 to 40 inches

Content of gravel: 0 to 5 percent in the silty mantle, 0 to 40 percent in the loamy subsoil, and 3 to 45 percent as a weighted average in the sandy outwash (0 to 65 percent in individual strata)

Content of cobbles: 0 to 5 percent throughout the profile

Ap horizon:

Hue—7.5YR or 10YR
Value—3 to 5
Chroma—2 or 3
Texture—silt loam

A horizon (if it occurs):

Hue—7.5YR or 10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

E horizon and E part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—silt loam

Bt horizon and Bt part of glossic horizon:

Hue—7.5YR or 10YR
Value—3 to 5
Chroma—4 to 6
Texture—silt loam

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR
Value—3 to 6
Chroma—4 to 6
Texture—loam, sandy loam, or sandy clay loam or the gravelly or very gravelly analogs of these textures

3C horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Capitola Series

Typical Pedon

Capitola muck, 1,840 feet north and 70 feet west of the southeast corner of sec. 12, T. 33 N., R. 8 E., Lincoln County, Wisconsin (a representative pedon of Capitola muck in Taylor County is in the NE¹/₄NW¹/₄ of sec. 34, T. 31 N., R. 3 E.):

Oa—0 to 5 inches; muck, black (10YR 2/1) broken face and rubbed, very dark gray (10YR 3/1) pressed; about 30 percent fiber, 9 percent rubbed; moderate very fine subangular blocky structure; very friable; many fine roots; primarily herbaceous fibers and some woody ones; about 5 percent brown (7.5YR 4/4) wood fragments; about 20 percent mineral ash material; brown (10YR 4/3) sodium pyrophosphate extract; strongly acid; abrupt smooth boundary.

A—5 to 7 inches; very dark gray (10YR 3/1) silt loam, gray (10YR 5/1 dry; weak fine subangular blocky structure; friable; many fine roots; few fine prominent dark brown (7.5YR 3/4) masses of iron accumulation; about 1 percent gravel and 10 percent cobbles; strongly acid; abrupt wavy boundary.

Bg1—7 to 10 inches; gray (10YR 5/1) silt loam; weak medium subangular blocky structure; firm; a few vertical cleavage planes; few fine roots; common fine prominent brown (7.5YR 4/4) masses of iron accumulation; about 1 percent gravel; moderately acid; abrupt wavy boundary.

Bg2—10 to 15 inches; dark grayish brown (10YR 4/2) silt loam; weak medium subangular blocky structure; firm; a few vertical cleavage planes; few fine roots; common fine prominent brown (7.5YR 4/4) and common medium faint brown (10YR 5/3) masses of iron accumulation and common

medium faint gray (10YR 5/1) iron depletions; common fine prominent dark reddish brown (5YR 2.5/2) concretions (iron and manganese oxides); about 1 percent gravel; very strongly acid; clear wavy boundary.

Bg3—15 to 22 inches; grayish brown (10YR 5/2) silt loam; weak fine subangular blocky structure; friable; a few vertical cleavage planes; few fine roots; few fine prominent dark red (2.5YR 3/6), common medium faint brown (10YR 5/3), and many medium prominent yellowish red (5YR 4/6) masses of iron accumulation; common fine prominent dark reddish brown (5YR 2.5/2) concretions (iron and manganese oxides); about 2 percent gravel; moderately acid; abrupt wavy boundary.

2Btg—22 to 33 inches; brown (7.5YR 4/2) sandy loam; moderate thin and very thin platy structure; friable; a few vertical cleavage planes; few fine roots; common distinct very dark gray (10YR 3/1) clay films on faces of pedis and many distinct very dark gray (10YR 3/1) clay films in pores; few fine prominent greenish gray (5GY 5/1) and common medium faint brown (7.5YR 5/2) iron depletions; common medium distinct brown (7.5YR 4/4) and many fine prominent reddish brown (5YR 4/4) masses of iron accumulation; common fine and medium prominent very dusky red (2.5YR 2.5/2) concretions (iron and manganese oxides); about 8 percent gravel and 2 percent cobbles; strongly acid; gradual wavy boundary.

2Cd—33 to 60 inches; brown (7.5YR 4/4) sandy loam; massive but tends to part along horizontal cleavage planes to weak thin plates; firm; dense and compact; few fine prominent yellowish red (5YR 4/6) masses of iron accumulation; about 8 percent gravel and 2 percent cobbles; moderately acid.

Range in Characteristics

Depth to dense loamy glacial till: 20 to 40 inches

Thickness of the silty or loamy mantle: 0 to 36 inches

Content of gravel: 0 to 15 percent in the silty or loamy mantle and 3 to 35 percent in the till

Content of cobbles: 0 to 15 percent throughout the profile

Content of stones: 0 to 5 percent throughout the profile

Percentage of surface covered by stones: 0.1 to 3.0 percent

Other features: Some pedons have a 2Cg horizon.

Oa horizon:

Hue—5YR, 7.5YR, or 10YR

Value—2 to 3

Chroma—1 or 2

Texture—muck

A horizon:

Hue—10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam or loam

Ap horizon (if it occurs):

Hue—10YR

Value—2 or 3

Chroma—2 or 3

Texture—silt loam or loam

Bg horizon:

Hue—7.5YR, 10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 or 2

Texture—silt loam, loam, sandy loam, or fine sandy loam

2Bt or 2Btg horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 6

Chroma—1 to 4

Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

2Cd horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 6

Chroma—3 or 4

Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

Cathro Series

Typical Pedon

Cathro muck, 2,530 feet south and 1,030 feet west of the northeast corner of sec. 35, T. 34 N., R. 7 E., Lincoln County, Wisconsin (a representative pedon of Cathro muck in Taylor County is in the SE¹/₄NE¹/₄ of sec. 22, T. 32 N., R. 2 E.):

Oa1—0 to 15 inches; muck, black (5YR 2/1) broken face, dark reddish brown (5YR 2/2) rubbed and pressed; about 15 percent fiber, 3 percent rubbed; weak fine subangular blocky structure; very friable; many fine roots; herbaceous and woody fibers; dark brown (10YR 4/3) sodium pyrophosphate extract; about 10 percent dark reddish brown (5YR 3/3) wood fragments; moderately acid (pH 5.7 by the Truog method); clear smooth boundary.

Oa2—15 to 28 inches; muck, dark reddish brown (5YR

3/2) broken face, dark reddish brown (5YR 2/2) rubbed and pressed; about 30 percent fiber, 5 percent rubbed; massive; very friable; woody and herbaceous fibers; dark brown (10YR 4/3) sodium pyrophosphate extract; about 2 percent dark reddish brown (5YR 3/3) wood fragments; moderately acid (pH 5.8 by the Truog method); abrupt smooth boundary.

Cg1—28 to 49 inches; dark gray (5Y 4/1) loam; common medium prominent olive brown (2.5Y 4/4) masses of iron accumulation; massive; friable; about 3 percent gravel; slightly acid; clear wavy boundary.

Cg2—49 to 60 inches; dark grayish brown (2.5Y 4/2) sandy loam; common medium distinct olive brown (2.5Y 4/4) masses of iron accumulation; massive; friable; about 5 percent gravel and 1 percent cobbles; moderately acid.

Range in Characteristics

Thickness of the organic material: 16 to 51 inches

Kind of organic material: Dominantly muck; thin layers of mucky peat or peat in some pedons

Content of rock fragments: 0 to 25 percent in the C or Cg horizon

Oa horizon:

Hue—5YR, 7.5YR, or 10YR

Value—2 to 3

Chroma—1 to 3

Texture—muck

C or Cg horizon:

Hue—5YR, 7.5YR, 10YR, 2.5Y, 5GY, 5GB, or 5Y

Value—4 to 6

Chroma—1 to 3

Texture—sandy loam, fine sandy loam, very fine sandy loam, sandy clay loam, loam, silt loam, clay loam, gravelly sandy loam, gravelly loam, or silty clay loam

Cebana Series

Typical Pedon

Cebana silt loam, 250 feet south and 2,600 feet east of the northwest corner of sec. 17, T. 38 N., R. 27 W., Mille Lacs County, Minnesota (a representative pedon of Cebana silt loam in Taylor County is in the NW¹/₄NE¹/₄ of sec. 32, T. 31 N., R. 1 W.):

Ap—0 to 8 inches; black (2.5Y 2/1) silt loam, gray (2.5Y 5/1) dry; weak fine subangular blocky structure; friable; about 2 percent gravel; moderately acid; abrupt smooth boundary.

Eg—8 to 13 inches; dark gray (5Y 4/1) silt loam, gray (5Y 6/1) dry; weak thick platy structure; friable; common medium prominent strong brown (7.5YR 4/6) masses of iron accumulation; about 2 percent gravel and 2 percent stones; strongly acid; clear wavy boundary.

E/B—13 to 27 inches; 80 percent light olive gray (5Y 6/2) silt loam (Eg); 20 percent olive gray (5Y 4/2) silt loam (Bt): weak medium platy structure parting to weak very fine subangular blocky; friable; common medium prominent strong brown (7.5YR 4/6) masses of iron accumulation; about 2 percent gravel; strongly acid; clear wavy boundary.

2Bt1—27 to 35 inches; brown (7.5YR 4/4) loam; weak medium subangular blocky structure; friable; distinct discontinuous grayish brown (2.5Y 5/2) skeletons on faces of peds and distinct discontinuous dark brown (7.5YR 3/4) clay films on faces of peds and in pores; common medium and coarse prominent yellowish red (5YR 5/6) masses of iron accumulation; about 5 percent gravel; strongly acid; diffuse wavy boundary.

2Bt2—35 to 49 inches; brown (7.5YR 4/4) loam; moderate medium subangular blocky structure; friable; distinct discontinuous dark brown (7.5YR 3/4) clay films on faces of peds and in pores; common medium distinct reddish brown (5YR 5/3) iron depletions and common medium prominent yellowish red (5YR 4/6) masses of iron accumulation; about 5 percent gravel; moderately acid; clear wavy boundary.

2BCd—49 to 67 inches; brown (7.5YR 4/3) sandy loam; weak very coarse prismatic structure; tends to part along horizontal cleavage planes to moderate medium plates inherited from the parent material; firm; few medium and coarse faint reddish brown (5YR 5/3) iron depletions and few medium and coarse prominent yellowish red (5YR 4/6) masses of iron accumulation; about 5 percent gravel; slightly acid; gradual wavy boundary.

2Cd—67 to 80 inches; brown (7.5YR 4/3) sandy loam; massive but has medium platelike soil fragments; firm; about 5 percent gravel; slightly acid.

Range in Characteristics

Depth to dense loamy glacial till: 60 to more than 80 inches

Thickness of the silty mantle: 15 to 30 inches

Content of gravel: 0 to 5 percent in the silty mantle, 2 to 15 percent in the 2B horizons, and 5 to 20 percent in the till

Content of cobbles: 0 to 5 percent throughout the profile

Content of stones: 0 to 5 percent throughout the profile
Percentage of surface covered by stones: 0.1 to 3.0 percent

A horizon:

Hue—10YR or 2.5Y
 Value—2 or 3
 Chroma—1
 Texture—silt loam

Eg horizon and E part of glossic horizon:

Hue—10YR, 2.5Y, or 5Y
 Value—4 to 6
 Chroma—1 or 2
 Texture—silt loam

Btg horizon (if it occurs) and Bt part of glossic horizon:

Hue—10YR or 2.5Y
 Value—4 to 6
 Chroma—1 or 2
 Texture—silt loam or silty clay loam

2Bt horizon:

Hue—5YR or 7.5YR
 Value—3 to 5
 Chroma—3 or 4
 Texture—loam, fine sandy loam, or sandy loam

2BCd horizon:

Hue—5YR or 7.5YR
 Value—3 or 4
 Chroma—3 or 4
 Texture—sandy loam or fine sandy loam

2Cd horizon:

Hue—5YR or 7.5YR
 Value—3 or 4
 Chroma—3 or 4
 Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

Comstock Series

Typical Pedon

Comstock silt loam, 300 feet north and 3,840 feet west of the southeast corner of sec. 22, T. 35 N., R. 15 W., Polk County, Wisconsin (a representative pedon of Comstock silt loam in Taylor County is in the NE¹/₄SE¹/₄ of sec. 12, T. 32 N., R. 1 E.):

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; weak and moderate fine subangular blocky structure; friable; many fine roots; moderately acid; abrupt smooth boundary.

E1—8 to 11 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; moderate medium

platy structure; friable; common fine roots; few medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; moderately acid; clear smooth boundary.

E2—11 to 15 inches; grayish brown (10YR 5/2) silt loam, light gray (10YR 7/2) dry; moderate medium platy structure; friable; common fine roots; many medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; clear smooth boundary.

B/E—15 to 21 inches; about 60 percent dark yellowish brown (10YR 4/4) silt loam (Bt); moderate fine and medium subangular blocky structure; friable; few distinct clay films on faces of peds; many medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; penetrated by tongues of grayish brown (10YR 5/2) silt loam (E), light gray (10YR 7/2) dry; moderate medium platy structure; friable; common fine roots; many medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary.

Bt1—21 to 28 inches; dark yellowish brown (10YR 4/4) silt loam; weak coarse prismatic structure parting to moderate medium subangular blocky; firm; few fine roots; common distinct clay films on faces of peds and in channels; few distinct coatings of light brownish gray (10YR 6/2) silt, mostly along vertical faces of prisms; many medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and common medium distinct dark grayish brown (10YR 4/2) iron depletions; strongly acid; clear wavy boundary.

Bt2—28 to 34 inches; dark yellowish brown (10YR 4/4) and yellowish brown (10YR 5/4) silt loam; weak coarse prismatic structure parting to weak coarse and medium subangular blocky; firm; few fine roots; common distinct clay films on faces of peds and in channels; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary.

BC—34 to 44 inches; yellowish brown (10YR 5/4) and grayish brown (10YR 5/2) silt loam that has strata of fine sand and very fine sand; weak coarse prismatic structure parting to weak coarse subangular blocky; friable; strongly acid; gradual wavy boundary.

C—44 to 60 inches; yellowish brown (10YR 5/4), stratified silt, silt loam, and very fine sand; massive; tends to break horizontally along textural strata; strongly acid.

Range in Characteristics

Depth to stratified lacustrine deposits: 24 to 40 inches

Ap horizon:

Hue—10YR
Value—2 or 3
Chroma—2 or 3
Texture—silt loam

A horizon (if it occurs):

Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

E horizon and E part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—silt loam

Bt horizon and Bt part of glossic horizon:

Hue—2.5YR, 5YR, 7.5YR, or 10YR
Value—4 or 5
Chroma—3 or 4
Texture—silt loam or silty clay loam; thin strata of silt, very fine sandy loam, loam, fine sandy loam, loamy very fine sand, loamy fine sand, very fine sand, fine sand, or sand in the lower part in some pedons

BC horizon and C horizon:

Hue—2.5YR, 5YR, 7.5YR, or 10YR
Value—3 to 5
Chroma—2 to 6
Texture—silt loam with thin strata silty clay loam, silt, fine sandy loam, very fine sandy loam, fine sand, very fine sand, loamy fine sand, loamy very fine sand, or loam

Crystal Lake Series***Typical Pedon***

Crystal Lake silt loam, 1,350 feet north and 2,600 feet east of the southwest corner of sec. 22, T. 35 N., R. 15 W., Polk County, Wisconsin (a representative pedon of Crystal Lake silt loam in Taylor County is in the SE¹/₄SW¹/₄ of sec. 3, T. 33 N., R. 2 E.):

Ap—0 to 8 inches; dark grayish brown (10YR 4/2) silt loam, pale brown (10YR 6/3) dry; moderate fine granular structure; friable; common roots; slightly acid; abrupt smooth boundary.

E—8 to 12 inches; light brownish gray (10YR 6/2) silt loam, light gray (10YR 7/2) dry; weak thin platy structure; very friable; few roots; few fine prominent yellowish red (5YR 4/6) masses of iron accumulation; moderately acid; clear wavy boundary.

B/E—12 to 20 inches; about 70 percent dark yellowish brown (10YR 4/4) silt loam (Bt); moderate fine subangular blocky structure; friable; common faint clay films on faces of peds; penetrated by tongues of light brownish gray (10YR 6/2) silt loam (E), light gray (10YR 7/2) dry; weak thin platy structure; friable; few roots; few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary.

Bt1—20 to 26 inches; dark yellowish brown (10YR 4/4) silt loam; moderate fine subangular blocky structure; friable; few roots; common distinct clay films on faces of peds; common distinct coatings of clean silt grains on vertical faces of peds; common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary.

Bt2—26 to 32 inches; dark yellowish brown (10YR 4/4) silt loam that has a few thin strata of very fine sandy loam; weak medium subangular blocky structure; friable; few roots; few distinct clay films, mainly on vertical faces of peds; common distinct clay films in pores and root channels; few distinct coatings of clean silt grains on vertical faces of peds; common fine distinct pale brown (10YR 6/3) and common fine prominent brownish yellow (10YR 6/8) masses of iron accumulation; strongly acid; clear wavy boundary.

C—32 to 60 inches; yellowish brown (10YR 5/4) silt loam that has thin strata of very fine sand; massive; breaks to weak thick plates along depositional strata; friable; many fine distinct light brownish gray (10YR 6/2) iron depletions and few medium distinct brownish yellow (10YR 6/8) and few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; moderately acid.

Range in Characteristics

Depth to stratified lacustrine deposits: 24 to 40 inches

Ap horizon:

Hue—10YR
Value—3 or 4
Chroma—2 or 3
Texture—silt loam

A horizon (if it occurs):

Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

E horizon and E part of glossic horizon:

Hue—10YR
Value—4 to 6

Chroma—2 or 3
Texture—silt loam or silt

Bt horizon and Bt part of glossic horizon:

Hue—2.5YR, 5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—3 or 4
Texture—silt loam or silty clay loam; thin strata of silt, very fine sandy loam, loam, fine sandy loam, loamy very fine sand, loamy fine sand, very fine sand, fine sand, or sand in the lower part

C horizon:

Hue—2.5YR, 5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—3 or 4
Texture—silt loam with thin strata of silt, very fine sandy loam, loam, fine sandy loam, loamy very fine sand, loamy fine sand, very fine sand, fine sand, or sand

Fordum Series

Typical Pedon

Fordum silt loam, 1,195 feet east and 820 feet north of the southwest corner of sec. 33, T. 29 N., R. 7 E., Marathon County, Wisconsin (a representative pedon of Fordum silt loam in Taylor County is in the NW¹/₄SW¹/₄ of sec. 4, T. 31 N., R. 1 E.):

- A—0 to 6 inches; very dark brown (10YR 2/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine subangular blocky structure; friable; many fine and medium roots; neutral; abrupt wavy boundary.
- Cg1—6 to 18 inches; dark gray (5Y 4/1) silt loam; weak coarse subangular blocky structure; friable; few fine roots; common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; many thin strata of fine sandy loam; moderately acid; clear wavy boundary.
- Cg2—18 to 30 inches; dark gray (10YR 4/1) fine sandy loam; massive; friable; common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; many thin strata of silt loam and fine sand; moderately acid; clear wavy boundary.
- Cg3—30 to 60 inches; gray (10YR 5/1) sand; single grain; loose; few thin strata of silt loam; slightly acid.

Range in Characteristics

Thickness of the silty and loamy mantle: 24 to 40 inches

Content of gravel: 0 to 35 percent in the silty and loamy alluvium and 0 to 60 percent in the sandy or sandy and gravelly alluvium

Content of cobbles: 0 to 10 percent throughout the profile

A horizon:

Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

Cg horizon in the silty and loamy alluvium:

Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—2 to 6
Chroma—1 or 2
Texture—stratified silt loam, loam, very fine sandy loam, sandy loam, or fine sandy loam or the gravelly, very gravelly, or mucky analogs of these textures; thin strata of coarser textures or organic materials in some pedons

C or Cg horizon in the sandy alluvium:

Hue—5YR, 7.5YR, 10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 4
Texture—sand, coarse sand, sand, fine sand, loamy sand, loamy coarse sand, or loamy fine sand or the gravelly or very gravelly analogs of these textures; stratified sand and gravel with thin strata of finer textures in some pedons

Freeon Series

Typical Pedon

Freeon silt loam, 1,900 feet north and 750 feet west of the southeast corner of sec. 24, T. 39 N., R. 9 W., Sawyer County, Wisconsin (a representative pedon of Freeon silt loam in Taylor County is in the NW¹/₄SW¹/₄ of sec. 27, T. 32 N., R. 2 E.):

- Oi—0 to 1 inch; slightly decomposed (fibric) plant material, black (7.5YR 2.5/1) broken face and rubbed; about 95 percent fiber, 90 percent rubbed; massive; very friable; many very fine and fine and common medium and coarse roots; very strongly acid (pH 4.5 in water 1:1); abrupt smooth boundary.
- A—1 to 5 inches; very dark brown (10YR 2/2) silt loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; many very fine, fine, and medium roots; about 5 percent gravel and 3 percent cobbles; moderately acid; abrupt wavy boundary.
- Bw—5 to 9 inches; dark yellowish brown (10YR 3/4)

silt loam; moderate medium subangular blocky structure; friable; common very fine and fine roots; about 5 percent gravel and 3 percent cobbles; moderately acid; clear wavy boundary.

E—9 to 13 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; common very fine and fine roots; about 5 percent gravel and 3 percent cobbles; moderately acid; clear wavy boundary.

E/B—13 to 19 inches; about 70 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; tonguing into or surrounding remnants of brown (7.5YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; few very fine and fine roots; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; about 5 percent gravel and 3 percent cobbles; moderately acid; clear wavy boundary.

2B/E—19 to 26 inches; about 70 percent dark reddish brown (5YR 3/4) sandy loam (Bt); moderate medium subangular blocky structure; friable; few faint dark reddish brown (5YR 3/3) clay films on horizontal faces of peds; penetrated by tongues of reddish brown (5YR 5/3) sandy loam (E), pink (5YR 7/3) dry; weak medium platy structure; friable; few very fine and fine roots; common medium prominent yellowish red (5YR 5/8) masses of iron accumulation; about 10 percent gravel and 3 percent cobbles; moderately acid; clear wavy boundary.

2Bt—26 to 38 inches; dark reddish brown (5YR 3/4) sandy loam; moderate medium prismatic structure; tends to part along horizontal cleavage planes to weak thin plates inherited from the parent material; firm; few very fine and fine roots; common faint dark reddish brown (5YR 3/3) clay films on all faces of peds; common medium prominent yellowish red (5YR 5/8) masses of iron accumulation; about 10 percent gravel and 3 percent cobbles; slightly acid; clear wavy boundary.

2BCd—38 to 58 inches; reddish brown (5YR 4/4) sandy loam; weak coarse prismatic structure; tends to part along horizontal cleavage planes to weak thin plates inherited from the parent material; firm; few faint dark reddish brown (5YR 3/4) clay films on top faces of peds; few medium prominent yellowish red (5YR 5/8) masses of iron accumulation; about 10 percent gravel and 3 percent cobbles; slightly acid; gradual wavy boundary.

2Cd—58 to 60 inches; reddish brown (2.5YR 4/4) sandy loam; massive; tends to part along

horizontal cleavage planes to weak thin plates; firm; about 10 percent gravel and 3 percent cobbles; slightly acid.

Range in Characteristics

Depth to dense loamy glacial till: 40 to 60 inches

Thickness of the silty mantle: 12 to 36 inches

Content of gravel: 0 to 10 percent in the silty mantle and 5 to 35 percent in the till

Content of cobbles: 0 to 3 percent in the silty mantle and 0 to 10 percent in the till

Content of stones: 0 to 5 percent throughout the profile

Percentage of surface covered by stones: 0.1 to 3.0 percent

O horizon:

Hue—7.5YR or 10YR

Value—2 to 3

Chroma—1 or 2

Texture—sapric, hemic, or fibric material

A horizon:

Hue—10YR

Value—2 or 3

Chroma—1 to 3

Texture—silt loam

Ap horizon (if it occurs):

Hue—10YR

Value—3 or 4

Chroma—2 or 3

Texture—silt loam

Bw horizon:

Hue—10YR

Value—3 to 6

Chroma—4 to 6

Texture—silt loam

E horizon and E part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—2 or 3

Texture—silt loam

Bt part of glossic horizon:

Hue—7.5YR or 10YR

Value—3 to 5

Chroma—4 to 6

Texture—silt loam

2E part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—loamy sand, sandy loam, or loam or the gravelly analogs of these textures

2Bt part of glossic horizon:

Hue—2.5YR, 5YR, 7.5YR, or 10YR
 Value—3 to 5
 Chroma—4 to 6
 Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2Bt horizon:

Hue—2.5YR, 5YR, or 7.5YR
 Value—3 to 5
 Chroma—4 to 6
 Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2BCd horizon:

Hue—2.5YR, 5YR, or 7.5YR
 Value—3 to 5
 Chroma—4 to 6
 Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2Cd horizon:

Hue—2.5YR, 5YR, or 7.5YR
 Value—3 to 5
 Chroma—4 to 6
 Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Loxley Series***Typical Pedon***

Loxley peat, 100 feet west and 1,825 feet south of the northeast corner of sec. 26, T. 39 N., R. 13 E., Forest County, Wisconsin (a representative pedon of Loxley peat in Taylor County is in the SW¹/₄SW¹/₄ of sec. 5, T. 32 N., R. 2 E.):

- Oi—0 to 12 inches; peat, dark yellowish brown (10YR 3/4) broken face and rubbed; about 80 percent fiber, 50 percent rubbed; moderate medium subangular blocky structure; very friable; many fine roots; fibers are primarily sphagnum moss; extremely acid (pH 4.0 in water 1:1); clear wavy boundary.
- Oa1—12 to 34 inches; muck, black (5YR 2.5/1) broken face, dark reddish brown (5YR 2.5/2) rubbed; about 56 percent fiber, 8 percent rubbed; moderate coarse subangular blocky structure; friable; few fine roots; fibers are primarily herbaceous; extremely acid (pH 4.0 in water 1:1); gradual wavy boundary.
- Oa2—34 to 41 inches; muck, black (5YR 2.5/1) broken face and rubbed; about 40 percent fiber, 6 percent rubbed; weak medium subangular blocky structure; friable; few fine roots; fibers are primarily

herbaceous; extremely acid (pH 4.3 in water 1:1); gradual wavy boundary.

- Oa3—41 to 60 inches; muck, black (5YR 2.5/1) broken face and rubbed; about 48 percent fiber, 8 percent rubbed; massive; friable; fibers are primarily herbaceous; extremely acid (pH 4.3 in water 1:1).

Range in Characteristics

Thickness of the organic material: More than 51 inches

Kind of organic material: Upper layer—peat; lower layers—dominantly muck; thin layers of mucky peat or peat in some pedons

Oi horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—3 to 5
 Chroma—2 to 6
 Texture—peat

Oa horizon:

Hue—2.5YR, 5YR, 7.5YR, 10YR, or 2.5Y
 Value—2 to 5
 Chroma—1 to 4
 Texture—muck

Loyal Series***Typical Pedon***

Loyal silt loam, 200 feet east and 1,300 feet south of the northwest corner of sec. 28, T. 25 N., R. 1 E., Clark County, Wisconsin (a representative pedon of Loyal silt loam in Taylor County is in the SE¹/₄NW¹/₄ of sec. 36, T. 30 N., R. 2 E.):

- Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; moderate fine subangular blocky structure; friable; common fine roots; neutral; abrupt smooth boundary.
- E—9 to 14 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; moderate thick platy structure parting to moderate fine subangular blocky; friable; few fine roots; common medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; neutral; abrupt smooth boundary.
- E/B—14 to 20 inches; 75 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium subangular blocky structure; friable; tonguing into or surrounding remnants of brown (7.5YR 5/4) silt loam (Bt); strong coarse prismatic structure parting to strong medium and coarse subangular blocky; firm; few fine roots; few faint brown (7.5YR 4/4) clay films on faces of peds; common medium prominent strong brown

(7.5YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary.

2B/E—20 to 24 inches; 75 percent reddish brown (5YR 5/4) loam (Bt); strong coarse prismatic structure parting to strong coarse subangular blocky; firm; few faint reddish brown (5YR 4/4) clay films on faces of peds; penetrated by tongues of brown (7.5YR 5/3) silt loam (E), light brown (7.5YR 6/3) dry; moderate coarse subangular blocky structure; friable; common fine distinct strong brown (7.5YR 5/6) masses of iron accumulation; about 4 percent gravel; very strongly acid; clear wavy boundary.

2Bt1—24 to 36 inches; reddish brown (5YR 4/4) loam; strong coarse prismatic structure parting to strong coarse subangular blocky; firm; common faint dark reddish brown (5YR 3/4) clay films on faces of peds; common medium prominent reddish yellow (7.5YR 6/8) masses of iron accumulation; about 4 percent gravel; very strongly acid; gradual smooth boundary.

2Bt2—36 to 45 inches; yellowish red (5YR 4/6) loam; moderate coarse subangular blocky structure; firm; few distinct reddish brown (5YR 4/4) clay films on vertical faces of peds; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; about 4 percent gravel; very strongly acid; gradual smooth boundary.

2C—45 to 60 inches; brown (7.5YR 5/4) sandy loam; massive; firm; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; about 4 percent gravel; strongly acid.

Range in Characteristics

Thickness of the silty mantle: 12 to 36 inches

Content of gravel: 0 to 10 percent in the silty mantle and 3 to 35 percent in the till

Content of cobbles: 0 to 5 percent in the silty mantle and 0 to 10 percent in the till

Other features: Some pedons have a 2BC horizon.

Ap horizon:

Hue—10YR
Value—3 or 4
Chroma—1 to 3
Texture—silt loam

A horizon (if it occurs):

Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

E horizon and E part of glossic horizon:

Hue—10YR
Value—4 to 6

Chroma—2 or 3
Texture—silt loam or silt

Bt part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture—silt loam

2Bt horizon and 2Bt part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR
Value—3 to 5
Chroma—4 to 6
Texture—sandy loam, loam, sandy clay loam, or clay loam or the gravelly analogs of these textures

2C horizon:

Hue—5YR or 7.5YR
Value—3 to 5
Chroma—4 to 6
Texture—sandy loam, loam, or sandy clay loam or the gravelly analogs of these textures

Lupton Series

Typical Pedon

Lupton muck, 2,000 feet west and 650 feet north of the southeast corner of sec. 5, T. 38 N., R. 13 E., Forest County, Wisconsin (a representative pedon of Lupton muck in Taylor County is in the SE¹/₄SE¹/₄ of sec. 7, T. 33 N., R. 3 E.):

Oa1—0 to 10 inches; muck, black (10YR 2/1) broken face and rubbed; about 66 percent fiber, 15 percent rubbed; moderate medium subangular blocky structure; very friable; many fine roots; fibers are primarily herbaceous; about 10 percent woody fragments; moderately acid (pH 6.0 in water 1:1); gradual wavy boundary.

Oa2—10 to 25 inches; muck, black (10YR 2/1) broken face and rubbed; about 60 percent fiber, 15 percent rubbed; weak medium subangular blocky structure; very friable; few fine roots; fibers are primarily herbaceous; about 10 percent woody fragments; moderately acid (pH 6.0 in water 1:1); gradual wavy boundary.

Oa3—25 to 46 inches; muck, black (10YR 2/1) broken face and rubbed; about 64 percent fiber, 15 percent rubbed; massive; very friable; fibers are primarily herbaceous; about 10 percent woody fragments; moderately acid (pH 6.0 in water 1:1); gradual wavy boundary.

Oa4—46 to 60 inches; muck, black (10YR 2/1) broken face and rubbed; about 72 percent fiber, 13

percent rubbed; massive; very friable; fibers are primarily herbaceous; slightly acid (pH 6.3 in water 1:1).

Range in Characteristics

Thickness of the organic material: More than 51 inches

Kind of organic material: Dominantly muck; thin layers of mucky peat or peat in some pedons

Oa horizon:

Hue—5YR, 7.5YR, or 10YR

Value—2 to 3

Chroma—1 to 3

Texture—muck

Magnor Series

Typical Pedon

Magnor silt loam, 2,750 feet north and 100 feet west of the southeast corner of sec. 31, T. 31 N., R. 3 E., Taylor County, Wisconsin:

A—0 to 4 inches; very dark brown (10YR 2/2) silt loam, dark grayish brown (10YR 4/2) dry; moderate medium subangular blocky structure; friable; many fine and medium roots; about 2 percent gravel; extremely acid; abrupt wavy boundary.

E1—4 to 7 inches; brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; moderate very fine subangular blocky structure; friable; common fine and medium roots; about 2 percent gravel; very strongly acid; clear wavy boundary.

E2—7 to 11 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; moderate thin platy structure; friable; common fine and medium roots; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; extremely acid; clear wavy boundary.

E/B—11 to 16 inches; 70 percent brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry (E); moderate thick platy structure; friable; tonguing into or surrounding remnants of dark yellowish brown (10YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; common fine and medium roots; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and few fine faint grayish brown (10YR 5/2) iron depletions; about 1 percent gravel; very strongly acid; gradual wavy boundary.

B/E—16 to 21 inches; 70 percent dark yellowish brown (10YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; few distinct

brown (7.5YR 4/2) clay films on faces of pedis; penetrated by tongues of brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate thick platy structure; friable; common fine and medium roots; common medium distinct grayish brown (10YR 5/2) iron depletions and common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 4 percent gravel; very strongly acid; gradual wavy boundary.

2Bt1—21 to 29 inches; reddish brown (5YR 4/4) sandy loam; moderate medium subangular blocky structure; firm; few fine and medium roots; common distinct reddish brown (5YR 4/3) clay films on faces of pedis; few fine distinct reddish gray (5YR 5/2) iron depletions and common medium distinct yellowish red (5YR 5/8) masses of iron accumulation; about 9 percent gravel; very strongly acid; gradual wavy boundary.

2Bt2—29 to 39 inches; reddish brown (5YR 4/4) sandy loam; moderate medium subangular blocky structure; firm; common distinct dark reddish gray (5YR 4/2) clay films on faces of pedis; few fine distinct reddish gray (5YR 5/2) iron depletions and many medium distinct yellowish red (5YR 5/8) masses of iron accumulation; about 10 percent gravel; strongly acid; gradual wavy boundary.

2Bt3—39 to 58 inches; reddish brown (5YR 4/4) fine sandy loam; moderate medium subangular blocky structure; firm; few distinct dark reddish gray (5YR 4/2) clay films on faces of pedis; few fine distinct yellowish red (5YR 5/8) masses of iron accumulation; about 12 percent gravel; moderately acid; gradual wavy boundary.

2Cd—58 to 60 inches; reddish brown (5YR 4/4) fine sandy loam; massive; tends to part along horizontal cleavage planes to weak thin plates; firm; dense and compact; about 10 percent gravel; moderately acid.

Range in Characteristics

Depth to dense loamy glacial till: 40 to 60 inches

Thickness of the silty mantle: 12 to 36 inches

Content of gravel: 0 to 10 percent in the silty mantle and 5 to 35 percent in the till

Content of cobbles: 0 to 5 percent in the silty mantle and 0 to 10 percent in the till

Content of stones: 0 to 5 percent throughout the profile

Percentage of surface covered by stones: 0.1 to 3.0 percent

Other features: Some pedons have a 2BCd horizon.

A horizon:

Hue—10YR

Value—2 or 3

Chroma—1 or 2
Texture—silt loam

Ap horizon (if it occurs):

Hue—7.5YR or 10YR
Value—3 or 4
Chroma—2 or 3
Texture—silt loam

E horizon and E part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—silt loam

Bt part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—silt loam

2Bt horizon:

Hue—2.5YR, 5YR, 7.5YR, or 10YR
Value—3 to 5
Chroma—3 to 6
Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2Cd horizon:

Hue—2.5YR, 5YR, or 7.5YR
Value—3 to 5
Chroma—3 to 6
Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Manitowish Series

Typical Pedon

Manitowish sandy loam, 1,180 feet west and 1,600 feet south of the northeast corner of sec. 33, T. 43 N., R. 5 E., Vilas County, Wisconsin (a representative pedon of Manitowish sandy loam in Taylor County is in the NE¹/₄SE¹/₄ of sec. 36, T. 33 N., R. 1 E.):

A—0 to 3 inches; very dark grayish brown (10YR 3/2) sandy loam, brown (10YR 5/3) dry; weak fine granular structure; very friable; common roots; about 1 percent gravel; strongly acid; abrupt wavy boundary.

E—3 to 4 inches; brown (7.5YR 5/2) sandy loam, pinkish gray (7.5YR 7/2) dry; weak fine subangular blocky structure; very friable; common roots; about 1 percent gravel; strongly acid; abrupt wavy boundary.

Bs1—4 to 6 inches; dark reddish brown (5YR 3/4) sandy loam; weak fine subangular blocky

structure; very friable; common roots; about 2 percent gravel; moderately acid; abrupt smooth boundary.

Bs2—6 to 16 inches; reddish brown (5YR 4/4) sandy loam; weak fine subangular blocky structure; very friable; common roots; about 2 percent gravel; strongly acid; clear wavy boundary.

2Bs3—16 to 19 inches; reddish brown (5YR 4/4) loamy coarse sand; weak medium subangular blocky structure; very friable; few roots; about 4 percent gravel; moderately acid; abrupt wavy boundary.

2C1—19 to 35 inches; strong brown (7.5YR 5/6) coarse sand; single grain; loose; about 12 percent gravel; moderately acid; clear wavy boundary.

2C2—35 to 60 inches; brown (7.5YR 4/4), stratified coarse sand and gravelly sand; single grain; loose; common medium prominent strong brown (7.5YR 5/8) masses of iron accumulation; about 20 percent gravel; slightly acid.

Range in Characteristics

Thickness of the loamy mantle: 10 to 20 inches

Content of gravel: 0 to 35 percent in the loamy mantle and 10 to 35 percent as a weighted average in the substratum; 0 to 65 percent in individual strata

Content of cobbles: 0 to 10 percent throughout the profile

Other features: Some pedons have a 2BC horizon.

A horizon:

Hue—5YR, 7.5YR, or 10YR
Value—2 or 3
Chroma—1 or 2
Texture—sandy loam

Ap horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR
Value—3 or 4
Chroma—2 or 3
Texture—sandy loam

E horizon:

Hue—5YR or 7.5YR
Value—4 or 5
Chroma—2 or 3
Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Bs horizon:

Hue—5YR or 7.5YR
Value—3 to 6
Chroma—4 to 6
Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2Bs horizon:

Hue—5YR or 7.5YR

Value—3 to 6

Chroma—4 to 6

Texture—loamy sand, loamy coarse sand, coarse sand, or sand or the gravelly analogs of these textures

2C horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—4 to 8

Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Maplehurst Series***Typical Pedon***

Maplehurst silt loam, 1,500 feet north and 350 feet west of the southeast corner of sec. 5, T. 29 N., R. 2 W., Clark County, Wisconsin (a representative pedon of Maplehurst silt loam in Taylor County is in the SW¹/₄SW¹/₄ of sec. 9, T. 32 N., R. 3 E.):

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam, pale brown (10YR 6/3) dry; weak fine subangular blocky structure; friable; many fine roots; moderately acid; abrupt smooth boundary.

E/B—9 to 16 inches; 70 percent pale brown (10YR 6/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; tonguing into and surrounding remnants of yellowish brown (10YR 5/4) silt loam (Bt); weak fine subangular blocky structure; friable; many fine roots; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 1 percent gravel; strongly acid; gradual wavy boundary.

B/E—16 to 25 inches; 60 percent yellowish brown (10YR 5/4) silt loam (Bt); moderate medium subangular blocky structure; friable; few distinct dark brown (7.5YR 4/3) clay films on faces of peds; penetrated by tongues of pale brown (10YR 6/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium subangular blocky structure; friable; few fine roots; few medium faint grayish brown (10YR 5/2) iron depletions and common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 1 percent gravel; strongly acid; gradual wavy boundary.

Bt1—25 to 44 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; friable; few fine roots; common distinct

brown (7.5YR 4/4) clay films on faces of peds; common faint pale brown (10YR 6/3) coatings of clean silt grains on faces of peds; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and few medium prominent grayish brown (2.5Y 5/2) iron depletions; about 1 percent gravel; very strongly acid; abrupt wavy boundary.

2Bt2—44 to 47 inches; brown (7.5YR 4/4) sandy loam; moderate medium subangular blocky structure; friable; few faint dark brown (7.5YR 4/3) clay films on faces of peds; few fine distinct strong brown (7.5YR 5/8) masses of iron accumulation; about 8 percent gravel; moderately acid; abrupt wavy boundary.

3C—47 to 60 inches; yellowish brown (10YR 5/4), stratified very gravelly coarse sand, gravelly coarse sand, and coarse sand; single grain; loose; few fine distinct brownish yellow (10YR 6/6) masses of iron accumulation; about 35 percent gravel and 5 percent cobbles as an average; moderately acid.

Range in Characteristics

Thickness of the silty mantle: 40 to 60 inches

Content of gravel: 0 to 5 percent in the silty mantle, 0 to 40 percent in the loamy subsoil, and 3 to 45 percent as a weighted average in the substratum; 0 to 65 percent in individual strata

Content of cobbles: 0 to 5 percent in the silty mantle and 0 to 10 percent in the loamy subsoil and in the substratum

Ap horizon:

Hue—7.5YR or 10YR

Value—3 or 4

Chroma—2 or 3

Texture—silt loam

A horizon (if it occurs):

Hue—7.5YR or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam

E part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—silt loam

Bt horizon and Bt part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—silt loam

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—loam, sandy loam, fine sandy loam, sandy clay loam, or loam or the gravelly or very gravelly analogs of these textures

3C or 3Cg horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 to 8

Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Marshfield Series***Typical Pedon***

Marshfield silt loam, 150 feet west and 1,100 feet north of the southeast corner of sec. 35, T. 28 N., R. 1 E., Clark County, Wisconsin (a representative pedon of Marshfield silt loam in Taylor County is in the SW¹/₄NW¹/₄ of sec. 36, T. 30 N., R. 2 E.):

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; weak fine granular structure; very friable; common very fine and fine roots; moderately acid; abrupt smooth boundary.

Eg—9 to 14 inches; grayish brown (10YR 5/2) silt loam, light gray (10YR 7/2) dry; moderate very fine subangular blocky structure; very friable; common very fine and fine roots; common medium distinct dark yellowish brown (10YR 4/6) masses of iron accumulation; strongly acid; gradual irregular boundary.

Btg1—14 to 30 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine and medium subangular blocky structure; friable; few very fine and fine roots; few faint very dark grayish brown (10YR 3/2) clay films on faces of peds; common medium distinct yellowish brown (10YR 5/6) and many coarse prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 3 percent gravel; strongly acid; clear wavy boundary.

2Btg2—30 to 36 inches; grayish brown (10YR 5/2) loam; moderate medium subangular blocky structure; firm; common faint dark grayish brown (10YR 4/2) clay films on vertical faces of peds; many coarse prominent strong brown (7.5YR 5/8) and common medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; about 10 percent gravel; strongly acid; clear wavy boundary.

2C—36 to 60 inches; brown (7.5YR 5/4) loam; massive; firm; few fine distinct very pale brown (10YR 7/3) iron depletions and many coarse distinct strong brown (7.5YR 5/8) masses of iron accumulation; about 10 percent gravel; neutral.

Range in Characteristics

Thickness of the silty mantle: 12 to 36 inches

Content of gravel: 0 to 10 percent in the silty mantle and 3 to 35 percent in the till

Content of cobbles: 0 to 5 percent in the silty mantle and 0 to 10 percent in the till

Ap horizon or A horizon (if it occurs):

Hue—10YR

Value—2 or 3

Chroma—1 to 3

Texture—silt loam

Eg horizon:

Hue—10YR or 2.5Y

Value—4 to 6

Chroma—1 or 2

Texture—silt loam

Btg horizon:

Hue—10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 or 2

Texture—silt loam or silty clay loam

2Btg horizon:

Hue—5YR, 7.5YR, 10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 or 2

Texture—sandy loam, loam, sandy clay loam, or clay loam or the gravelly analogs of these textures

2C or 2Cg horizon:

Hue—5YR, 7.5YR, 10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 to 4

Texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam or the gravelly analogs of these textures

Minocqua Series***Typical Pedon***

Minocqua muck, 320 feet east and 2,075 feet north of the southwest corner of sec. 1, T. 36 N., R. 13 E., Forest County, Wisconsin (a representative pedon of Minocqua muck in Taylor County is in the NE¹/₄SW¹/₄ of sec. 27, T. 33 N., R. 2 E.):

- Oa—0 to 4 inches; muck, black (2.5Y 2.5/1) broken face, dark brown (7.5YR 3/2) rubbed; about 60 percent fiber, 12 percent rubbed; weak fine granular structure; very friable; many fine and common medium roots; fibers are primarily herbaceous; about 15 percent mineral material; moderately acid; abrupt smooth boundary.
- Eg1—4 to 8 inches; dark gray (10YR 4/1) silt loam, light gray (10YR 7/1) dry; weak thin platy structure; friable; common fine roots; common medium distinct dark yellowish brown (10YR 4/4) and few fine prominent strong brown (7.5YR 4/6) masses of iron accumulation; about 8 percent gravel; strongly acid; abrupt wavy boundary.
- Eg2—8 to 15 inches; grayish brown (10YR 5/2) silt loam; moderate thin platy structure; friable; few fine roots; many medium prominent brown (7.5YR 4/4) and few fine prominent red (2.5YR 4/6) masses of iron accumulation; about 3 percent gravel; moderately acid; clear wavy boundary.
- 2Bg—15 to 28 inches; dark grayish brown (10YR 4/2) loam; weak medium subangular blocky structure parting to weak thin platy; friable; common medium prominent strong brown (7.5YR 4/6) and many medium prominent brown (7.5YR 4/4) masses of iron accumulation; about 5 percent gravel; moderately acid; abrupt wavy boundary.
- 3C1—28 to 33 inches; brown (7.5YR 4/4) sand; single grain; loose; common coarse distinct strong brown (7.5YR 4/6) masses of iron accumulation; about 5 percent gravel; slightly acid; abrupt wavy boundary.
- 3C2—33 to 38 inches; brown (7.5YR 4/4) gravelly sand; single grain; loose; common coarse distinct strong brown (7.5YR 4/6) masses of iron accumulation; about 30 percent gravel; slightly acid; gradual wavy boundary.
- 3C3—38 to 60 inches; brown (10YR 5/3) very gravelly sand; single grain; loose; about 40 percent gravel; slightly acid.

Range in Characteristics

- Thickness of the silty and loamy mantle:* 20 to 40 inches
- Content of gravel:* 0 to 35 percent in the silty and loamy mantle and 3 to 50 percent as a weighted average in the substratum; 0 to 65 percent in individual strata
- Content of cobbles:* 0 to 5 percent throughout the profile
- Oa horizon:*
Hue—7.5YR, 10YR, or 2.5Y
Value—2 or 3

- Chroma—1 or 2
Texture—muck

A horizon (if it occurs):

- Hue—5YR, 7.5YR, or 10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam, loam, sandy loam, fine sandy loam, or very fine sandy loam or the mucky analogs of these textures

Eg horizon:

- Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—1 or 2
Texture—silt loam, loam, sandy loam, fine sandy loam, or very fine sandy loam

2Bg horizon:

- Hue—7.5YR, 10YR, 2.5Y, 5Y, or 5GY
Value—4 to 6
Chroma—1 or 2
Texture—dominantly loam or gravelly loam; sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam in some pedons

3C or 3Cg horizon:

- Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—2 to 4
Texture—sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures; strata of loamy sand or loamy coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures in some pedons

Moppet Series

Typical Pedon

Moppet fine sandy loam, 1,850 feet east and 2,200 feet south of the northwest corner of sec. 32, T. 35 N., R. 13 W., Barron County, Wisconsin (a representative pedon of Moppet fine sandy loam in Taylor County is in the SE¹/₄NE¹/₄ of sec. 6, T. 30 N., R. 1 E.):

- A—0 to 4 inches; very dark grayish brown (10YR 3/2) fine sandy loam, brownish gray (10YR 6/2) dry; weak fine granular structure; very friable; many very fine and fine roots; extremely acid; clear smooth boundary.
- E—4 to 10 inches; brown (10YR 4/3) fine sandy loam that has thin strata of silt loam and very fine sandy loam, pale brown (10YR 6/2) dry; weak medium subangular blocky structure; very friable; breaks to

weak thin plates along depositional strata; common very fine and fine roots; extremely acid; clear smooth boundary.

Bw1—10 to 19 inches; dark yellowish brown (10YR 4/4) fine sandy loam; a few thin strata of fine sand; weak medium subangular blocky structure; very friable; breaks to weak thin plates along depositional strata; common very fine and fine roots; very strongly acid; clear smooth boundary.

Bw2—19 to 29 inches; dark yellowish brown (10YR 4/4) fine sandy loam; common thin strata of fine sand and very fine sand; weak coarse subangular blocky structure; friable; breaks to moderate medium plates along depositional strata; few very fine and fine roots; few fine prominent strong brown (7.5YR 4/6) masses of iron accumulation; very strongly acid; clear smooth boundary.

Bw3—29 to 39 inches; dark yellowish brown (10YR 4/4) fine sandy loam; few thin strata of fine sand; weak coarse subangular blocky structure; friable; breaks to moderate medium plates along depositional strata; few very fine and fine roots; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; clear smooth boundary.

2C—39 to 60 inches; dark yellowish brown (10YR 4/6) gravelly sand; single grain; loose; few medium faint yellowish brown (10YR 5/6) masses of iron accumulation; about 20 percent gravel; strongly acid.

Range in Characteristics

Thickness of the loamy mantle: 24 to 40 inches

Content of gravel: 0 to 35 percent in the sandy or sandy and gravelly alluvium

A horizon:

Hue—5YR, 7.5YR, or 10YR

Value—3 or 4

Chroma—1 to 3

Texture—fine sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—fine sandy loam, sandy loam, loam, very fine sandy loam, or silt loam; thin strata of coarser or finer textures

Bw horizon:

Hue—5YR, 7.5YR, or 10YR

Value—3 to 6

Chroma—4 to 6

Texture—fine sandy loam, sandy loam, loam, very

fine sandy loam, or silt loam; thin strata of coarser or finer textures

2C horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—sand, fine sand, loamy sand, or loamy fine sand or the gravelly analogs of these textures; thin strata of finer textures in some pedons

Newood Series

Typical Pedon

Newood sandy loam, 390 feet east and 2,310 feet north of the southwest corner of sec. 31, T. 32 N., R. 6 E., Lincoln County, Wisconsin (a representative pedon of Newood sandy loam in Taylor County is in the NE¹/₄NE¹/₄ of sec. 26, T. 33 N., R. 3 E.):

A—0 to 4 inches; very dark gray (10YR 3/1) sandy loam, gray (10YR 5/1) dry; moderate fine and medium granular structure; friable; many fine roots; about 11 percent gravel and 2 percent cobbles; moderately acid; abrupt wavy boundary.

E—4 to 5 inches; brown (7.5YR 4/2) gravelly sandy loam, pinkish gray (7.5YR 6/2) dry; weak medium platy structure; very friable; many fine roots; few distinct very dark gray (10YR 3/1) wormcasts; about 14 percent gravel and 2 percent cobbles; strongly acid; abrupt broken boundary.

Bs1—5 to 8 inches; dark brown (7.5YR 3/4) gravelly sandy loam; weak very fine subangular blocky structure; very friable; many fine roots; about 19 percent gravel and 4 percent cobbles; strongly acid; clear broken boundary.

Bs2—8 to 13 inches; brown (7.5YR 4/4) gravelly sandy loam; weak fine subangular blocky structure; very friable; many fine roots; about 19 percent gravel and 4 percent cobbles; strongly acid; clear wavy boundary.

E'—13 to 17 inches; brown (7.5YR 5/3) gravelly sandy loam, pinkish gray (7.5YR 6/2) dry; weak medium platy structure; very friable; many fine roots; about 13 percent gravel and 4 percent cobbles; strongly acid; clear broken boundary.

E/B—17 to 29 inches; 80 percent brown (7.5YR 5/3) gravelly sandy loam (E'), pinkish gray (7.5YR 6/2) dry; weak medium platy structure; very friable; tonguing into or surrounding remnants of reddish brown (5YR 4/4) gravelly sandy loam (Bt); moderate fine subangular blocky structure; friable;

few faint dark reddish brown (5YR 3/4) clay films on faces of peds; common fine roots; about 19 percent gravel and 3 percent cobbles; strongly acid; clear wavy boundary.

B/E—29 to 37 inches; 70 percent reddish brown (5YR 4/4) gravelly sandy loam (Bt); moderate fine subangular blocky structure; friable; common faint dark reddish brown (5YR 3/4) clay films on faces of peds; penetrated by tongues of brown (7.5YR 5/3) gravelly sandy loam (E'), pinkish gray (7.5YR 6/2) dry; weak medium platy structure; very friable; common fine roots; many distinct coatings of brown (7.5YR 5/3) sand grains in pores; about 13 percent gravel and 2 percent cobbles; moderately acid; clear wavy boundary.

Bt—37 to 46 inches; reddish brown (5YR 4/4) gravelly sandy loam; weak fine and medium prismatic structure; tends to part along horizontal cleavage planes to strong medium plates inherited from the parent material; firm; few fine roots; very compact; many faint dark reddish brown (5YR 3/4) clay films on all faces of peds and in pores; common distinct coatings of brown (7.5YR 5/3) sand grains, primarily on vertical faces of peds; common fine distinct yellowish red (5YR 4/6) masses of iron accumulation; about 14 percent gravel and 2 percent cobbles; moderately acid; clear wavy boundary.

BCd—46 to 58 inches; reddish brown (5YR 4/4) sandy loam; moderate weak very coarse prismatic structure; tends to part along horizontal cleavage planes to moderate thick plates inherited from the parent material; firm; few fine roots; very compact; few faint dark reddish brown (5YR 3/4) clay films on vertical faces of peds; few distinct coatings of brown (7.5YR 5/3) sand grains primarily on vertical faces of peds; few fine distinct yellowish red (5YR 5/6) and common medium distinct yellowish red (5YR 4/6) masses of iron accumulation on vertical faces of peds; about 11 percent gravel and 2 percent cobbles; moderately acid; gradual wavy boundary.

Cd—58 to 60 inches; reddish brown (5YR 4/4) sandy loam; massive but tends to part along horizontal cleavage planes; very firm; dense and compact; about 12 percent gravel and 2 percent cobbles; strongly acid.

Range in Characteristics

Depth to dense loamy glacial till: 40 to 80 inches

Content of gravel: 2 to 20 percent in the upper loamy till and 5 to 30 percent in the lower loamy till

Content of cobbles: 0 to 10 percent throughout the profile

Content of stones: 0 to 1 percent throughout the profile

Percentage of surface covered by stones: 0.1 to 3.0 percent

Other features: Some pedons have an O horizon.

A horizon or Ap horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR

Value—2 to 4

Chroma—1 or 2

Texture—sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Bs horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 6

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

E' horizon and E' part of glossic horizon:

Hue—5YR, 7.5YR, 10YR

Value—4 to 6

Chroma—2 or 3

Texture—loamy sand, sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Bt horizon and Bt part of glossic horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 5

Chroma—3 to 6 (value and chroma of 3 do not occur in the same pedon)

Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

BCd horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 5

Chroma—3 to 6 (value and chroma of 3 do not occur in the same pedon)

Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

Cd horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 5

Chroma—3 or 4 (value and chroma of 3 do not occur in the same pedon)

Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

Newot Series***Typical Pedon***

Newot sandy loam, 1,780 feet west and 1,230 feet south of the northeast corner of sec. 26, T. 33 N., R. 3 E., Taylor County, Wisconsin:

Oa—0 to 2 inches; highly decomposed (sapric) plant material, black (7.5YR 2.5/1) broken face and rubbed; about 20 percent fiber, 8 percent rubbed; weak medium granular structure; very friable; many very fine and fine and common medium and coarse roots; very strongly acid (pH 4.5 in water 1:1); abrupt smooth boundary.

E—2 to 4 inches; brown (7.5YR 4/2) sandy loam, pinkish gray (7.5YR 6/2) dry; weak medium platy structure; very friable; many very fine and fine and common medium and coarse roots; about 10 percent gravel and 3 percent cobbles; very strongly acid; abrupt wavy boundary.

Bs—4 to 10 inches; brown (7.5YR 4/4) gravelly sandy loam; moderate medium subangular blocky structure; friable; many very fine and fine and common medium and coarse roots; about 14 percent gravel and 3 percent cobbles; very strongly acid; clear wavy boundary.

E/B—10 to 25 inches; 75 percent brown (7.5YR 5/3) gravelly sandy loam (E'), pink (7.5YR 7/3) dry; moderate medium platy structure; friable; tonguing into or surrounding remnants of reddish brown (5YR 4/4) gravelly sandy loam (Bt); moderate medium subangular blocky structure; friable; common very fine and fine and few medium and coarse roots; about 14 percent gravel and 3 percent cobbles; moderately acid; clear wavy boundary.

B/E—25 to 38 inches; 75 percent reddish brown (5YR 4/4) gravelly sandy loam (Bt); moderate medium subangular blocky structure; friable; few faint reddish brown (5YR 4/3) clay films on faces of peds; penetrated by tongues of brown (7.5YR 5/3) gravelly sandy loam (E'), pink (7.5YR 7/3) dry; moderate medium platy structure; friable; few very fine and fine roots; about 14 percent gravel and 3 percent cobbles; moderately acid; clear wavy boundary.

Bt—38 to 55 inches; reddish brown (5YR 4/4) gravelly sandy loam; moderate medium prismatic structure; tends to part along horizontal cleavage planes to weak thin plates inherited from the parent material; firm; very compact; few faint reddish brown (5YR 4/3) clay films on faces of peds; about 14 percent gravel and 3 percent cobbles; moderately acid; clear wavy boundary.

Cd—55 to 60 inches; reddish brown (5YR 4/4) gravelly sandy loam; massive but tends to part along horizontal cleavage planes; firm; dense and compact; about 14 percent gravel and 3 percent cobbles; moderately acid.

Range in Characteristics

Depth to dense loamy glacial till: 40 to 80 inches
Content of gravel: 2 to 35 percent throughout the profile

Content of cobbles: 0 to 10 percent throughout the profile

Content of stones: 0 to 1 percent throughout the profile
Percentage of surface covered by stones: 0.1 to 3.0 percent

Other features: Some pedons have a BCd horizon.

O horizon:

Hue—7.5YR or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—sapric, hemic, or fibric material

A horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Bs horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 6

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

E' part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—loamy sand, sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Bt horizon and Bt part of glossic horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 5

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

Cd horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 5

Chroma—3 or 4

Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

Oesterle Series***Typical Pedon***

Oesterle sandy loam, 500 feet east and 1,000 feet south of the northwest corner of sec. 31, T. 25 N., R. 10 E., Portage County, Wisconsin (a representative pedon of Oesterle loam in Taylor County is in the NE¹/₄SE¹/₄ of sec. 2, T. 32 N., R. 2 W.):

Ap—0 to 7 inches; very dark brown (10YR 2/2) sandy loam, dark grayish brown (10YR 4/2) dry; weak very fine subangular blocky structure; friable; few fine roots; about 5 percent gravel; very strongly acid; abrupt smooth boundary.

E/B—7 to 11 inches; about 70 percent brown (10YR 5/3) sandy loam (E), very pale brown (10YR 7/3) dry; weak thick platy structure; friable; tonguing into yellowish brown (10YR 5/4) sandy loam (Bt); moderate very fine subangular blocky structure; friable; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; few fine prominent and distinct yellowish brown (10YR 5/8) masses of iron accumulation; about 5 percent gravel; very strongly acid; clear wavy boundary.

Bt1—11 to 16 inches; yellowish brown (10YR 5/4) sandy loam; weak medium subangular blocky structure; friable; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; many fine distinct light brownish gray (10YR 6/2) iron depletions and many fine prominent yellowish red (5YR 5/8) masses of iron accumulation; about 7 percent gravel; very strongly acid; clear wavy boundary.

Bt2—16 to 27 inches; yellowish brown (10YR 5/4) sandy loam; moderate medium subangular blocky structure; friable; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; many medium prominent yellowish red (5YR 5/8) masses of iron accumulation and many medium distinct light brownish gray (10YR 6/2) iron depletions; about 10 percent gravel; very strongly acid; gradual wavy boundary.

Bt3—27 to 31 inches; mixed light brownish gray (10YR 6/2) and yellowish red (5YR 5/8) sandy loam; weak medium subangular blocky structure; very friable; few distinct and prominent dark yellowish

brown (10YR 4/4) clay films on faces of peds; the light brownish gray areas are iron depletions, and the yellowish red areas are masses of iron accumulation; about 10 percent gravel; strongly acid; clear wavy boundary.

2C—31 to 60 inches; yellowish brown (10YR 5/4), stratified sand and gravelly sand; single grain; loose; about 20 percent gravel; moderately acid.

Range in Characteristics

Thickness of the loamy mantle: 20 to 40 inches

Content of gravel: 0 to 35 percent in the loamy mantle and 3 to 50 percent as a weighted average in the substratum; 0 to 60 percent in individual strata

Content of cobbles: 0 to 5 percent throughout the profile

A horizon (if it occurs):

Hue—10YR

Value—2 or 3

Chroma—1 or 2

Texture—loam or sandy loam

Ap horizon (if it occurs):

Hue—10YR

Value—2 or 3

Chroma—2 or 3

Texture—loam or sandy loam

E horizon and E part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—dominantly sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures; loamy sand, loamy coarse sand, gravelly loamy sand, or gravelly loamy coarse sand in some pedons

Bt or Btg horizon and Bt part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 to 8

Texture—loam, fine sandy loam, or sandy loam or the gravelly analogs of these textures

2Bt or 2BC horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—1 to 8

Texture—sand, coarse sand, loamy sand, or loamy coarse sand or the gravelly or very gravelly analogs of these textures

2C horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—1 to 8

Texture—stratified sand or coarse sand or the gravelly or very gravelly analogs of these textures

Ossmer Series

Typical Pedon

Ossmer silt loam, 2,050 feet south and 450 feet west of the northeast corner of sec. 6, T. 32 N., R. 8 E., Lincoln County, Wisconsin (a representative pedon of Ossmer silt loam in Taylor County is in the NW¹/₄NE¹/₄ of sec. 27, T. 32 N., R. 1 E.):

- A—0 to 4 inches; very dark gray (10YR 3/1) silt loam, dark gray (10YR 5/1) dry; moderate fine granular structure; friable; many fine roots; about 2 percent gravel; strongly acid; abrupt wavy boundary.
- E—4 to 6 inches; grayish brown (10YR 5/2) silt loam, light gray (10YR 7/2) dry; weak medium platy structure; very friable; many fine roots; few distinct very dark gray (10YR 3/1) wormcasts; few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; very strongly acid; abrupt wavy boundary.
- E/B—6 to 11 inches; about 80 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; weak medium platy structure; very friable; tonguing into and surrounding remnants of yellowish brown (10YR 5/4) silt loam (Bt); weak medium prismatic structure parting to weak fine subangular blocky; friable; few prominent reddish brown (5YR 4/3) clay films on faces of peds; common fine roots; common fine prominent strong brown (7.5YR 5/8) and few fine prominent yellowish red (5YR 5/6) masses of iron accumulation and few fine distinct light brownish gray (10YR 6/2) iron depletions; about 2 percent gravel; very strongly acid; clear wavy boundary.
- B/E—11 to 26 inches; about 60 percent yellowish brown (10YR 5/4) silt loam (Bt); weak coarse prismatic structure parting to weak fine subangular blocky; friable; few prominent reddish brown (5YR 4/3) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; weak medium platy structure; very friable; few fine roots; common fine prominent yellowish red (5YR 4/6) and strong brown (7.5YR 5/6) masses of iron accumulation and common fine faint light brownish gray (10YR 6/2) iron depletions; few fine prominent dark reddish brown (5YR 2/2)

concretions (iron and manganese oxides); about 2 percent gravel; very strongly acid; clear wavy boundary.

- 2Bt1—26 to 34 inches; brown (7.5YR 4/4) loam; weak coarse prismatic structure parting to moderate fine subangular blocky; friable; tends to part along horizontal cleavage planes inherited from the parent material; few fine roots; few distinct dark reddish brown (5YR 3/4) clay films on faces of peds; many prominent light brownish gray (10YR 6/2) coatings of silt and sand, mostly on vertical faces of peds and in pores; common fine prominent light brownish gray (10YR 6/2) iron depletions and common fine prominent yellowish red (5YR 4/6) and distinct strong brown (7.5YR 5/6) masses of iron accumulation; common fine prominent dark reddish brown (5YR 2/2) concretions (iron and manganese oxides); about 5 percent gravel and 1 percent cobbles; very strongly acid; abrupt wavy boundary.
- 2Bt2—34 to 38 inches; brown (7.5YR 4/4) sandy loam; weak coarse prismatic structure parting to weak medium subangular blocky; friable; tends to part along horizontal cleavage planes inherited from the parent material; few fine roots; common distinct dark reddish brown (5YR 3/4) clay bridges between mineral grains; many prominent light brownish gray (10YR 6/2) coatings of silt and sand, mostly on vertical faces of peds; many medium prominent yellowish red (5YR 4/6) and common fine distinct strong brown (7.5YR 5/6) masses of iron accumulation and common medium prominent light brownish gray (10YR 6/2) iron depletions; common fine prominent very dusky red (2.5YR 2/2) concretions (iron and manganese oxides); about 8 percent gravel and 1 percent cobbles; strongly acid; abrupt wavy boundary.
- 3C—38 to 60 inches; brown (7.5YR 5/4), stratified sand and gravelly sand; single grain; loose; few medium distinct brown (10YR 5/3) iron depletions and strong brown (7.5YR 5/6) masses of iron accumulation; about 10 percent gravel as an average; moderately acid.

Range in Characteristics

- Thickness of the silty mantle:* 12 to 40 inches
Content of gravel: 0 to 5 percent in the silty mantle, 0 to 40 percent in the loamy subsoil, and 3 to 45 percent as a weighted average in the sandy outwash; 0 to 65 percent in individual strata
Content of cobbles: 0 to 5 percent throughout the profile

A horizon:

Hue—10YR
 Value—2 or 3
 Chroma—1 or 2
 Texture—silt loam

Ap horizon (if it occurs):

Hue—10YR
 Value—3 or 4
 Chroma—2 or 3
 Texture—silt loam

E horizon and E part of glossic horizon:

Hue—10YR
 Value—4 to 6
 Chroma—2 or 3
 Texture—silt loam

Bt part of glossic horizon:

Hue—7.5YR or 10YR
 Value—4 or 5
 Chroma—4 to 6
 Texture—silt loam

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—4 to 6
 Chroma—3 to 8
 Texture—loam, sandy loam, or fine sandy loam or the gravelly or very gravelly analogs of these textures

3C or 3Cg horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—3 to 6
 Chroma—1 to 8
 Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Padus Series***Typical Pedon***

Padus sandy loam, 2,100 feet west and 150 feet north of the southeast corner of sec. 30, T. 38 N., R. 16 E., Florence County, Wisconsin (a representative pedon of Padus sandy loam in Taylor County is in the NE¹/₄SW¹/₄ of sec. 22, T. 33 N., R. 3 W.):

A—0 to 2 inches; dark brown (7.5YR 3/2) sandy loam, gray (7.5YR 5/1) dry; moderate medium and fine granular structure; friable; many very fine and fine and few medium and coarse roots; very strongly acid; abrupt wavy boundary.

E—2 to 3 inches; pinkish gray (7.5YR 6/2) sandy loam, pinkish gray (7.5YR 7/2) dry; weak medium

subangular blocky structure; very friable; many very fine and fine and few medium and coarse roots; very strongly acid; abrupt broken boundary.

Bs1—3 to 8 inches; dark brown (7.5YR 3/4) sandy loam; moderate medium subangular blocky structure; friable; common very fine and fine and few medium and coarse roots; very strongly acid; abrupt wavy boundary.

Bs2—8 to 19 inches; brown (7.5YR 4/4) sandy loam; moderate medium subangular blocky structure; friable; common very fine and fine and few medium and coarse roots; very strongly acid; clear wavy boundary.

E/B—19 to 26 inches; about 85 percent brown (10YR 5/3) sandy loam (E'), very pale brown (10YR 7/3) dry; weak very thick platy structure; friable; extending into and surrounding remnants of brown (7.5YR 4/4) sandy loam (Bt); moderate medium subangular blocky structure; friable; few fine roots; very strongly acid; gradual wavy boundary.

B/E—26 to 38 inches; about 80 percent brown (7.5YR 4/4) sandy loam (Bt); moderate medium and coarse subangular blocky structure; friable; few faint dark brown (7.5YR 3/4) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) sandy loam (E'), very pale brown (7.5YR 7/3) dry; moderate fine subangular blocky structure; friable; about 12 percent gravel; very strongly acid; abrupt wavy boundary.

2C—38 to 60 inches; yellowish brown (10YR 5/4), stratified sand and gravelly coarse sand; single grain; loose; about 20 percent gravel; slightly acid.

Range in Characteristics

Thickness of the loamy mantle: 24 to 40 inches

Content of gravel: 0 to 35 percent in the loamy mantle and 3 to 50 percent as a weighted average in the substratum; 3 to 60 percent in individual strata

Content of cobbles: 0 to 5 percent throughout the profile

A horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—2 or 3
 Chroma—1 or 2
 Texture—sandy loam

Ap horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR
 Value—3 or 4
 Chroma—2 or 3
 Texture—sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—4 to 6

Chroma—2 or 3

Texture—dominantly sandy loam, fine sandy loam, or loam; loamy sand in some pedons

Bs horizon:

Hue—5YR or 7.5YR

Value—3 to 6

Texture—sandy loam, fine sandy loam, or loam

E' part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—dominantly sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures; loamy sand or gravelly loamy sand in some pedons

Bt part of glossic horizon:

Hue—5YR, 7.5YR, 10YR

Value—4 or 5

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2C horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—stratified sand or coarse sand or the gravelly or very gravelly analogs of these textures

Padwood Series

Typical Pedon

Padwood sandy loam, 1,290 feet west and 2,440 feet south of the northeast corner of sec. 24, T. 35 N., R. 7 E., Lincoln County, Wisconsin (a representative pedon of Padwood sandy loam in Taylor County is in the NW¹/₄NE¹/₄ of sec. 25, T. 33 N., R. 1 E.):

A—0 to 4 inches; very dark gray (10YR 3/1) sandy loam, gray (10YR 5/1) dry; moderate fine granular structure; friable; many fine roots; about 3 percent gravel and 2 percent cobbles; strongly acid; abrupt wavy boundary.

E—4 to 5 inches; brown (7.5YR 5/2) sandy loam, pinkish gray (7.5YR 7/2) dry; weak thin platy structure; very friable; many fine roots; many distinct very dark gray (10YR 3/1) wormcasts; about 2 percent gravel and 2 percent cobbles; strongly acid; abrupt broken boundary.

Bs1—5 to 7 inches; dark reddish brown (5YR 3/4) sandy loam; weak very fine subangular blocky structure; very friable; many fine roots; few

prominent very dark gray (10YR 3/1) wormcasts; about 8 percent gravel and 2 percent cobbles; strongly acid; abrupt broken boundary.

Bs2—7 to 15 inches; brown (7.5YR 4/4) sandy loam; weak fine subangular blocky structure; very friable; many fine roots; about 7 percent gravel and 2 percent cobbles; strongly acid; clear wavy boundary.

E/B—15 to 27 inches; 70 percent brown (7.5YR 5/3) gravelly sandy loam (E'), pink (7.5YR 7/3) dry; weak medium platy structure; friable; extending into and surrounding remnants of brown (7.5YR 4/4) gravelly sandy loam (Bt); moderate fine subangular blocky structure; friable; common distinct dark reddish brown (5YR 3/4) clay films on faces of peds; common fine roots; about 14 percent gravel and 2 percent cobbles; strongly acid; abrupt wavy boundary.

2Bt—27 to 36 inches; strong brown (7.5YR 4/6) gravelly loamy sand; weak fine subangular blocky structure; very friable; few fine roots; many prominent dark reddish brown (5YR 3/4) clay bridges between mineral grains; about 21 percent gravel and 3 percent cobbles; strongly acid; abrupt wavy boundary.

2C1—36 to 50 inches; light yellowish brown (10YR 6/4) fine sand; single grain; loose; few medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; less than 1 percent gravel; moderately acid; abrupt wavy boundary.

3C2—50 to 70 inches; stratified, brown (10YR 5/3) very fine sandy loam and yellowish brown (10YR 5/4) very fine sand; a few thin strata of strong brown (7.5YR 5/6) fine sand and brown (10YR 4/3) silt loam; massive; friable; breaks to weak thick to thin plates along depositional strata; common fine prominent yellowish red (5YR 4/6) and common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; moderately acid.

Range in Characteristics

Thickness of the loamy mantle: 24 to 40 inches

Depth to stratified lacustrine deposits: 40 to 60 inches

Content of gravel: 0 to 35 percent in the loamy mantle and 3 to 50 percent as a weighted average in the sandy or sandy and gravelly glacial outwash; 0 to 60 percent in individual strata

Content of cobbles: 0 to 5 percent in the loamy mantle and in the sandy or sandy and gravelly glacial outwash

A horizon:

Hue—5YR, 7.5YR, or 10YR

Value—2 or 3

Chroma—1 or 2
Texture—sandy loam

Ap horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR
Value—3 or 4
Chroma—2 or 3
Texture—sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Bs horizon:

Hue—5YR or 7.5YR
Value—3 to 6
Chroma—4 to 6
Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

E' part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—sandy loam, fine sandy loam, loam, or loamy sand or the gravelly analogs of these textures

Bt part of glossic horizon:

Hue—5YR, 7.5YR, 10YR
Value—4 or 5
Chroma—4 to 6
Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—4 to 6
Texture—loamy sand, loamy fine sand, sand, or fine sand or the gravelly or very gravelly analogs of these textures

2C horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—fine sand, sand, or coarse sand or the gravelly or very gravelly analogs of these textures; stratified in many pedons

3C horizon:

Hue—5YR, 7.5YR, 10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 6

Texture—stratified silt, silt loam, very fine sandy loam, loamy very fine sand, or very fine sand; thin strata of silty clay loam, loam, sandy loam, fine sandy loam, loamy fine sand, and fine or medium sand in most pedons

Pelissier Series

Typical Pedon

Pelissier gravelly sandy loam, 600 feet south and 1,800 feet west of the northeast corner of sec. 4, T. 48 N., R. 27 W., Marquette County, Michigan (a representative pedon of Pelissier gravelly sandy loam in Taylor County is in the NE¹/₄NW¹/₄ of sec. 11, T. 33 N., R. 1 E.):

Oa—0 to 2 inches; black (10YR 2/1), highly decomposed plant material; moderate fine granular structure; very friable; many very fine to coarse roots; extremely acid; abrupt smooth boundary.

E—2 to 6 inches; brown (7.5YR 5/2) gravelly sandy loam, pinkish gray (7.5YR 6/2) dry; weak fine subangular blocky structure; friable; common very fine to coarse roots; about 20 percent gravel and 5 percent cobbles; extremely acid; clear wavy boundary.

Bs1—6 to 10 inches; dark reddish brown (5YR 3/4) gravelly sandy loam; weak medium subangular blocky structure; friable; many very fine to coarse roots; about 20 percent gravel and 5 percent cobbles; very strongly acid; gradual irregular boundary.

Bs2—10 to 21 inches; yellowish red (5YR 4/6) very gravelly loamy coarse sand; weak fine subangular blocky structure; very friable; common very fine to medium roots; about 35 percent gravel and 5 percent cobbles; strongly acid; gradual wavy boundary.

C1—21 to 36 inches; strong brown (7.5YR 5/6) very gravelly coarse sand; single grain; loose; common very fine to medium roots; about 50 percent gravel and 5 percent cobbles; strongly acid; gradual wavy boundary.

C2—36 to 80 inches; reddish yellow (7.5YR 6/6) very gravelly coarse sand; single grain; loose; few very fine and fine roots; about 50 percent gravel and 10 percent cobbles; strongly acid.

Range in Characteristics

Thickness of the loamy mantle: 0 to 9 inches

Content of gravel: 1 to 35 percent in the E horizon, 15 to 35 percent in the Bs1 horizon, and 15 to 60 percent in the rest of the profile

Content of cobbles: 0 to 55 percent in the E and Bs1 horizons and 0 to 70 percent in the rest of the profile

Content of stones: 0 to 2 percent throughout the profile

Other features: Some pedons have a BC horizon.

A horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—sandy loam, gravelly sandy loam, gravelly coarse sandy loam, gravelly loamy sand, gravelly sand, or very cobbly sandy loam

E horizon:

Hue—5YR or 7.5YR

Value—4 to 6

Chroma—1 to 3

Texture—sandy loam, gravelly sandy loam, gravelly coarse sandy loam, gravelly loamy sand, gravelly sand, or very cobbly sandy loam

Bs1 horizon:

Hue—5YR or 7.5YR

Value—3 or 4

Chroma—4

Texture—the gravelly, very gravelly, cobbly, or very cobbly analogs of sandy loam, coarse sandy loam, loamy sand, loamy coarse sand, sand, or coarse sand

Bs2 horizon:

Hue—5YR or 7.5YR

Value—4

Chroma—4 to 6

Texture—the gravelly, very gravelly, cobbly, or very cobbly analogs of loamy sand, loamy coarse sand, sand, or coarse sand

C horizon:

Hue—7.5YR or 10YR

Value—5 or 6

Chroma—3 to 6

Texture—the very gravelly, extremely gravelly, very cobbly, or extremely cobbly analogs of coarse sand or sand

Pence Series

Typical Pedon

Pence sandy loam, 200 feet east and 380 feet north of the southwest corner of sec. 5, T. 38 N., R. 11 E., Oneida County, Wisconsin (a representative pedon of Pence sandy loam in Taylor County is in the SW¹/₄SW¹/₄ of sec. 20, T. 33 N., R. 2 E.):

A—0 to 3 inches; dark reddish brown (5YR 3/2) sandy loam, reddish gray (5YR 5/2) dry; weak fine subangular blocky structure; very friable; many roots; common white (5YR 8/1) sand grains; about 10 percent gravel; moderately acid; abrupt smooth boundary.

E—3 to 8 inches; brown (7.5YR 4/2) sandy loam, pinkish gray (7.5YR 7/2) dry; weak fine subangular blocky structure; very friable; many roots; about 10 percent gravel; strongly acid; clear wavy boundary.

Bs1—8 to 11 inches; dark reddish brown (5YR 3/4) gravelly sandy loam; weak medium subangular blocky structure; very friable; common roots; about 15 percent gravel; moderately acid; clear wavy boundary.

Bs2—11 to 15 inches; reddish brown (5YR 4/4) gravelly sandy loam; weak fine and medium subangular blocky structure; very friable; common roots; about 15 percent gravel; strongly acid; clear wavy boundary.

2BC—15 to 21 inches; yellowish red (5YR 4/6 and 5/6) gravelly coarse sand; weak coarse subangular blocky structure; very friable; few roots; about 25 percent gravel; strongly acid; clear wavy boundary.

2C—21 to 60 inches; stratified yellowish red and reddish yellow (5YR 5/6 and 6/6) gravelly coarse sand; thin strata of light reddish brown (5YR 6/4) coarse sand and sand; single grain; loose; about 25 percent gravel; strongly acid.

Range in Characteristics

Thickness of the loamy mantle: 10 to 20 inches

Content of gravel: 0 to 35 percent in the loamy mantle and 15 to 35 percent as a weighted average in the substratum; 0 to 65 percent in individual strata

Content of cobbles: 0 to 10 percent throughout the profile

A horizon:

Hue—5YR, 7.5YR, or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—sandy loam

Ap horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR

Value—3 or 4

Chroma—1 to 3

Texture—sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—sandy loam, fine sandy loam, loam, or loamy sand

Bs horizon:

Hue—5YR or 7.5YR

Value—3 to 6

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2BC horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—6 to 8

Texture—sand, coarse sand, loamy sand, loamy coarse sand, or loamy fine sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

2C horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Pesabic Series

Typical Pedon

Pesabic sandy loam, 900 feet south and 1,300 feet west of the northeast corner of sec. 26, T. 33 N., R. 3 E., Taylor County, Wisconsin:

Oe—0 to 3 inches; moderately decomposed (hemic) plant material, black (7.5YR 2.5/1) broken face, rubbed, and pressed; about 50 percent fiber, 20 percent rubbed; massive; very friable; many very fine and fine and few medium and coarse roots; about 2 percent gravel and 1 percent cobbles; extremely acid (pH 4.3 in water 1:1); abrupt wavy boundary.

E—3 to 4 inches; brown (7.5YR 5/2) sandy loam, pinkish gray (7.5YR 7/2) dry; weak medium subangular blocky structure; very friable; many very fine and fine and few medium and coarse roots; about 5 percent gravel and 4 percent cobbles; very strongly acid; abrupt wavy boundary.

Bs1—4 to 7 inches; dark brown (7.5YR 3/4) sandy loam; weak medium subangular blocky structure; very friable; many very fine and fine and few medium and coarse roots; about 5 percent gravel and 4 percent cobbles; very strongly acid; clear wavy boundary.

Bs2—7 to 16 inches; brown (7.5YR 4/4) sandy loam;

weak medium subangular blocky structure; very friable; many very fine and fine and few medium and coarse roots; common fine prominent yellowish red (5YR 5/8) masses of iron accumulation; about 5 percent gravel and 5 percent cobbles; strongly acid; abrupt wavy boundary.

E'—16 to 30 inches; brown (7.5YR 5/3) sandy loam, pink (7.5YR 7/3) dry; weak medium and thick platy structure; friable; common very fine and fine and few medium and coarse roots; many fine prominent yellowish red (5YR 5/8) masses of iron accumulation; about 8 percent gravel and 5 percent cobbles; strongly acid; clear wavy boundary.

E/B—30 to 39 inches; 75 percent brown (7.5YR 5/3) sandy loam (E'), pink (7.5YR 7/3) dry; weak thin platy structure; friable; tonguing into or surrounding remnants of brown (7.5YR 4/4) sandy loam (Bt); moderate medium subangular blocky structure; friable; few very fine and fine roots; common faint and distinct reddish brown (5YR 4/3) clay films on faces of some peds; many fine prominent yellowish red (5YR 5/8) masses of iron accumulation; about 8 percent gravel and 5 percent cobbles; moderately acid; clear wavy boundary.

Bt—39 to 53 inches; reddish brown (5YR 4/4) gravelly sandy loam; moderate medium subangular blocky structure; firm; tends to part along horizontal cleavage planes inherited from the parent material; distinct yellowish red (5YR 5/8) masses of iron accumulation; about 15 percent gravel and 5 percent cobbles; moderately acid; clear wavy boundary.

Cd—53 to 84 inches; reddish brown (5YR 4/4) gravelly sandy loam; massive but tends to part along horizontal cleavage planes; firm; dense and compact; few fine distinct yellowish red (5YR 5/6) masses of iron accumulation; about 15 percent gravel and 8 percent cobbles; moderately acid.

Range in Characteristics

Depth to dense loamy glacial till: 40 to 70 inches

Content of gravel: 2 to 30 percent throughout the profile

Content of cobbles: 0 to 10 percent throughout the profile

Content of stones: 0 to 2 percent throughout the profile

Percentage of surface covered by stones: 0.1 to 3.0 percent

Other features: Some pedons have a BCd horizon.

O horizon:

Hue—5YR, 7.5YR, or 10YR

Value—2 or 3
 Chroma—1 or 2
 Texture—sapric, hemic, or fibric material

A horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR
 Value—2 or 3
 Chroma—1 or 2
 Texture—sandy loam

Ap horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR
 Value—3 or 4
 Chroma—2 or 3
 Texture—sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—4 to 6
 Chroma—2 or 3
 Texture—sandy loam, fine sandy loam, or loam

Bs horizon:

Hue—2.5YR, 5YR, or 7.5YR
 Value—3 to 6
 Chroma—4 to 6
 Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

E' horizon and E part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—4 to 6
 Chroma—2 or 3
 Texture—sandy loam, fine sandy loam, or loamy sand or the gravelly analogs of these textures

Bt horizon and Bt part of glossic horizon:

Hue—2.5YR, 5YR, or 7.5YR
 Value—3 to 5
 Chroma—3 to 6 (value and chroma of 3 do not occur in the same pedon)
 Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

Cd horizon:

Hue—2.5YR, 5YR, or 7.5YR
 Value—3 to 5
 Chroma—3 or 4 (value and chroma of 3 do not occur in the same pedon)
 Texture—sandy loam, fine sandy loam, gravelly sandy loam, or gravelly fine sandy loam

Plover Series

Typical Pedon

Plover fine sandy loam, 1,355 feet south and 2,600 feet east of the northwest corner of sec. 27, T. 35 N.,

R. 15 W., Polk County, Wisconsin (a representative pedon of Plover fine sandy loam in Taylor County is in the NE¹/₄NW¹/₄ of sec. 13, T. 33 N., R. 1 E.):

Ap—0 to 10 inches; very dark grayish brown (10YR 3/2) fine sandy loam, light brownish gray (10YR 6/2) dry; weak fine subangular blocky structure; very friable; common very fine to medium roots; neutral; abrupt smooth boundary.

E—10 to 13 inches; brown (10YR 5/3) fine sandy loam, very pale brown (10YR 7/3) dry; weak thick platy structure parting to weak fine subangular blocky; very friable; few very fine and fine roots; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; slightly acid; clear wavy boundary.

B/E—13 to 18 inches; about 65 percent brown (7.5YR 4/4) fine sandy loam (Bt); weak medium and fine subangular blocky structure; friable; few faint dark brown (7.5YR 3/4) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) fine sandy loam (E), very pale brown (10YR 7/3) dry; weak medium subangular blocky structure; friable; few very fine and fine roots; common coarse prominent strong brown (7.5YR 5/8) masses of iron accumulation and common fine prominent grayish brown (10YR 5/2) iron depletions; strongly acid; clear wavy boundary.

Bt1—18 to 23 inches; brown (7.5YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; few very fine and fine roots; common faint dark brown (7.5YR 4/3) clay films on faces of most peds; coatings of brown (10YR 5/3) soil on vertical faces of some peds; common medium distinct strong brown (7.5YR 5/8) masses of iron accumulation and common medium prominent grayish brown (10YR 5/2) iron depletions; strongly acid; clear wavy boundary.

Bt2—23 to 32 inches; brown (7.5YR 4/4) fine sandy loam; weak coarse subangular blocky structure; very friable; few very fine roots; common faint dark brown (7.5YR 3/4) clay films on faces of peds and in root channels; common fine distinct strong brown (7.5YR 5/8) masses of iron accumulation and common fine prominent grayish brown (10YR 5/2) iron depletions; moderately acid; clear wavy boundary.

C—32 to 60 inches; strong brown (7.5YR 5/6), stratified silt, loamy fine sand, and fine sand; massive; friable; many medium distinct pinkish gray (7.5YR 6/2) iron depletions; slightly acid.

Range in Characteristics

Depth to stratified lacustrine deposits: Less than 40 inches

Ap horizon:

Hue—10YR
 Value—3 or 4
 Chroma—2 or 3
 Texture—fine sandy loam

A horizon (if it occurs):

Hue—10YR
 Value—2 or 3
 Chroma—1 or 2
 Texture—fine sandy loam

E horizon and E part of glossic horizon:

Hue—7.5YR or 10YR
 Value—4 to 6
 Chroma—2 or 3
 Texture—dominantly silt loam, very fine sandy loam, or fine sandy loam; sandy loam or loamy fine sand in some pedons

Bt part of glossic horizon:

Hue—7.5YR or 10YR
 Value—4 to 6
 Chroma—4 or 5
 Texture—sandy loam, fine sandy loam, very fine sandy loam, or loam

Bt horizon:

Hue—5YR, 7.5YR, 10YR
 Value—4 to 6
 Chroma—3 to 6
 Texture—sandy loam, fine sandy loam, very fine sandy loam, or loam; thin strata of coarser or finer textures in some pedons

C horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—4 to 6
 Chroma—4 to 6
 Texture—stratified silt, silt loam, loam, very fine sandy loam, fine sandy loam, sandy loam, loamy fine sand, loamy sand, very fine sand, fine sand, or sand

Poskin Series***Typical Pedon***

Poskin silt loam, 1,340 feet west and 2,190 feet south of the northeast corner of sec. 16, T. 35 N., R. 10 W., Barron County, Wisconsin (a representative pedon of Poskin silt loam in Taylor County is in the NW¹/₄NW¹/₄ of sec. 6, T. 30 N., R. 1 E.):

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable;

common fine and medium roots; slightly acid; abrupt smooth boundary.

E—9 to 12 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; few fine roots; few fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; slightly acid; clear wavy boundary.

E/B—12 to 19 inches; about 70 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; tonguing into or surrounding remnants of dark yellowish brown (10YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; few distinct brown (7.5YR 4/4) clay films on faces of peds; few fine roots; common medium faint light brownish gray (10YR 6/2) iron depletions and few fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; slightly acid; clear wavy boundary.

Bt1—19 to 27 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable; few fine roots; common distinct brown (7.5YR 4/4) clay films on faces of peds; common medium distinct light brownish gray (10YR 6/2) iron depletions and common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary.

Bt2—27 to 36 inches; brown (7.5YR 4/4) silt loam; moderate medium subangular blocky structure; friable; few fine roots; common distinct brown (7.5YR 4/2) clay films on faces of peds; common medium prominent grayish brown (10YR 5/2) iron depletions and common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; strongly acid; clear wavy boundary.

2Bt3—36 to 39 inches; brown (7.5YR 4/4) sandy loam; weak medium subangular blocky structure; friable; few distinct brown (7.5YR 4/2) clay films on faces of peds; few medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; about 8 percent gravel; moderately acid; clear smooth boundary.

3C—39 to 60 inches; reddish brown (5YR 4/4), stratified sand and gravelly sand; single grain; loose; few fine distinct yellowish red (5YR 4/6) masses of iron accumulation; about 20 percent gravel (as an average) and 5 percent cobbles; moderately acid.

Range in Characteristics

Thickness of the silty mantle: 20 to 40 inches

Content of gravel: 0 to 5 percent in the silty mantle, 0 to 40 percent in the loamy lower part of the subsoil, and 3 to 45 percent as a weighted

average in the substratum; 0 to 65 percent in individual strata

Content of cobbles: 0 to 5 percent throughout the profile

Ap horizon:

Hue—7.5YR or 10YR

Value—3 to 5

Chroma—2 or 3

Texture—silt loam

A horizon (if it occurs):

Hue—7.5YR or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam

E horizon and E part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—silt loam or silt

Bt part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—silt loam

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 or 5

Chroma—3 to 6

Texture—loam, sandy loam, fine sandy loam, or sandy clay loam or the gravelly or very gravelly analogs of these textures

3C or 3Cg horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 to 8

Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Rib Series

Typical Pedon

Rib silt loam, 0 to 2 percent slopes, approximately 2,400 feet west and 20 feet south of the northeast corner of sec. 18, T. 31 N., R. 2 E., Taylor County, Wisconsin:

A—0 to 7 inches; very dark gray (10YR 3/1) silt loam, gray (10YR 5/1) dry; moderate medium granular structure; friable; many very fine and few fine,

medium, and coarse roots; about 5 percent gravel and 1 percent cobbles; moderately acid; abrupt smooth boundary.

Eg—7 to 10 inches; dark gray and gray (2.5Y 4/1 and 5/1) silt loam, light gray (2.5Y 7/1) dry; moderate medium subangular blocky structure parting to weak thin platy; friable; few very fine and fine roots; few fine distinct (2.5Y 4/4) olive brown masses of iron accumulation; about 5 percent gravel and 1 percent cobbles; moderately acid; clear wavy boundary.

Btg1—10 to 18 inches; grayish brown (2.5Y 5/2) silt loam; moderate medium subangular blocky structure; friable; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; many fine and medium distinct olive brown (2.5Y 4/4) masses of iron accumulation; about 5 percent gravel and 1 percent cobbles; slightly acid; clear wavy boundary.

Btg2—18 to 32 inches; grayish brown (2.5Y 5/2) silt loam; moderate medium and coarse subangular blocky structure; friable; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; many medium and coarse prominent dark yellowish brown (10YR 4/6) masses of iron accumulation and few fine prominent gray (10YR 5/1) iron depletions; about 5 percent gravel and 1 percent cobbles; neutral; clear wavy boundary.

2Bg—32 to 35 inches; grayish brown (2.5Y 5/2) loam; moderate medium subangular blocky structure; friable; many medium and coarse prominent dark yellowish brown (10YR 4/6) masses of iron accumulation; about 5 percent gravel; neutral; clear wavy boundary.

3BC—35 to 37 inches; brown and dark brown (10YR 4/3 and 3/3) gravelly loamy sand; weak medium subangular blocky structure; very friable; about 15 percent gravel and 2 percent cobbles; neutral; clear wavy boundary.

3C—37 to 60 inches; brown and dark brown (10YR 4/3 and 3/3) gravelly coarse sand; single grain; loose; about 20 percent gravel and 2 percent cobbles; neutral.

Range in Characteristics

Thickness of the silty and loamy mantle: 20 to 40 inches

Content of gravel: 0 to 5 percent in the silty mantle, 0 to 40 percent in the loamy lower part of the subsoil, and 3 to 45 percent as a weighted average in the substratum; 0 to 65 percent in individual strata

Content of cobbles: 0 to 5 percent throughout the profile

A horizon or Ap horizon (if it occurs):

Hue—10YR or 7.5YR
 Value—2 or 3
 Chroma—1 or 2
 Texture—silt loam

Eg horizon:

Hue—10YR, 2.5Y, or 5Y
 Value—4 to 6
 Chroma—1 or 2
 Texture—silt loam

Btg horizon:

Hue—10YR, 2.5Y, or 5Y
 Value—4 to 6
 Chroma—1 or 2
 Texture—silt loam or silty clay loam

2Bg horizon:

Hue—7.5YR, 10YR, or 2.5Y
 Value—4 to 6
 Chroma—1 or 2
 Texture—loam or sandy loam or the gravelly or very gravelly analogs of these textures

3BC horizon:

Hue—7.5YR, 10YR, or 2.5Y
 Value—3 to 8
 Chroma—1 to 6
 Texture—loamy sand or loamy coarse sand or the gravelly or very gravelly analogs of these textures

3C or 3Cg horizon:

Hue—7.5YR, 10YR, or 2.5Y
 Value—3 to 8
 Chroma—1 to 6
 Texture—sand or coarse sand or the gravelly or very gravelly analogs of these textures

Ribriver Series***Typical Pedon***

Ribriver silt loam, 0 to 3 percent slopes, 2,500 feet east and 2,100 feet north of the southwest corner of sec. 36, T. 32 N., R. 3 E., Taylor County, Wisconsin:

A—0 to 5 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine granular structure; friable; many very fine and fine and common medium and coarse roots; about 2 percent gravel; moderately acid; abrupt wavy boundary.

Bw—5 to 10 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky

structure; very friable; many very fine and fine and few medium and coarse roots; about 2 percent gravel; strongly acid; clear wavy boundary.

E/B—10 to 17 inches; 80 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; weak thin platy structure; friable; tonguing into and surrounding remnants of dark yellowish brown (10YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; common very fine and fine and few medium roots; about 2 percent gravel; strongly acid; gradual wavy boundary.

B/E—17 to 24 inches; 60 percent dark yellowish brown (10YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; common faint dark yellowish brown (10YR 3/4) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; weak thin platy structure; friable; few very fine and fine roots; few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; strongly acid; gradual wavy boundary.

Bt1—24 to 32 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium angular blocky structure; friable; few very fine and fine roots; many faint dark yellowish brown (10YR 3/4) clay films on faces of peds; common faint brown (10YR 5/3) silt coatings on vertical faces of peds; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; strongly acid; gradual wavy boundary.

Bt2—32 to 45 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; friable; common faint dark yellowish brown (10YR 3/4) clay films on faces of peds; many medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 2 percent gravel; very strongly acid; clear wavy boundary.

2Bt3—45 to 48 inches; brown (7.5YR 4/4) gravelly sandy loam; weak medium subangular blocky structure; very friable; few faint dark brown (7.5YR 3/4) clay films on faces of peds; about 16 percent gravel; strongly acid; clear wavy boundary.

3C—48 to 60 inches; brown (7.5YR 4/4), stratified very gravelly coarse sand and coarse sand; single grain; loose; about 30 percent gravel as an average; moderately acid.

Range in Characteristics

Thickness of the silty mantle: 0 to 60 inches

Content of gravel: 0 to 5 percent in the silty mantle, 0 to 40 percent in the loamy lower part of the

subsoil, and 3 to 45 percent as a weighted average in the sandy outwash; 0 to 65 percent in individual strata

Content of cobbles: 0 to 5 percent in the silty mantle and 0 to 10 percent in the substratum

A horizon:

Hue—7.5YR or 10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

Ap horizon (if it occurs):

Hue—7.5YR or 10YR
Value—3 or 4
Chroma—2 or 3
Texture—silt loam

Bw horizon:

Hue—10YR
Value—3 to 6
Chroma—4 to 6
Texture—silt loam

E part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—silt loam

Bt horizon and Bt part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 6
Texture—silt loam

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR
Value—3 to 6
Chroma—4 to 6
Texture—loam, fine sandy loam, or sandy loam or the gravelly analogs of these textures

3C horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Santiago Series

Typical Pedon

Santiago silt loam, 15 to 30 percent slopes, very stony, 1,400 feet south and 200 feet east of the northwest

corner of sec. 20, T. 32 N., R. 3 E., Taylor County, Wisconsin:

A—0 to 4 inches; black (10YR 2/1) silt loam, dark gray (10YR 4/1) dry; moderate medium granular structure; friable; many very fine and fine and common medium and coarse roots; about 2 percent gravel; strongly acid; abrupt wavy boundary.

E/B—4 to 16 inches; about 70 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; weak medium platy structure; friable; tonguing into or surrounding remnants of dark yellowish brown (10YR 4/4) silt loam (Bt); weak medium subangular blocky structure; friable; common very fine and fine and few medium and coarse roots; about 2 percent gravel and 1 percent cobbles; moderately acid; clear wavy boundary.

B/E—16 to 22 inches; about 60 percent dark yellowish brown (10YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; common faint dark yellowish brown (10YR 3/4) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; weak medium platy structure; friable; common very fine and fine and few medium and coarse roots; about 3 percent gravel and 1 percent cobbles; moderately acid; clear wavy boundary.

2Bt1—22 to 33 inches; brown (7.5YR 4/4) sandy loam; moderate medium subangular blocky structure; friable; tends to part along horizontal cleavage planes inherited from the parent material; few very fine and fine roots; common faint dark brown (7.5YR 3/4) clay films on all faces of peds; about 10 percent gravel and 3 percent cobbles; slightly acid; clear wavy boundary.

2Bt2—33 to 44 inches; reddish brown (5YR 4/4) sandy loam; moderate medium prismatic structure; tends to part along horizontal cleavage planes to weak medium plates inherited from the parent material; firm; common faint dark reddish brown (5YR 3/4) clay films on top faces of peds; about 10 percent gravel and 3 percent cobbles; slightly acid; clear wavy boundary.

2Cd—44 to 60 inches; reddish brown (5YR 4/4) sandy loam; massive; tends to part along horizontal cleavage planes to weak medium plates; firm; dense and compact; about 10 percent gravel and 3 percent cobbles; slightly acid.

Range in Characteristics

Depth to dense loamy glacial till: 40 to 90 inches

Thickness of the silty mantle: 12 to 36 inches

Content of gravel: 0 to 10 percent in the silty mantle and 5 to 35 percent in the till

Content of cobbles: 0 to 3 percent in the silty mantle and 0 to 10 percent in the till

Content of stones: 0 to 5 percent throughout the profile

Percentage of surface covered by stones: 0.1 to 3.0 percent

Other features: Some pedons have a 2BCd horizon.

A horizon:

Hue—7.5YR or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam

Ap horizon (if it occurs):

Hue—7.5YR or 10YR

Value—3 or 4

Chroma—1 to 3

Texture—silt loam

E part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—silt loam

Bt part of glossic horizon:

Hue—7.5YR or 10YR

Value—3 to 5

Chroma—4 to 6

Texture—silt loam

2Bt horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 5

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2Cd horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 5

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Sconsin Series

Typical Pedon

Sconsin silt loam, 700 feet north and 400 feet east of the southwest corner of sec. 28, T. 33 N., R. 8 E., Lincoln County, Wisconsin (a representative pedon of Sconsin silt loam in Taylor County is in the NW¹/₄NW¹/₄ of sec. 33, T. 33 N., R. 2 E.):

A—0 to 4 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate

fine granular structure; friable; many fine roots; about 2 percent gravel; strongly acid; abrupt wavy boundary.

E—4 to 5 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak medium platy structure; very friable; many fine roots; few faint very dark grayish brown (10YR 3/2) wormcasts; about 2 percent gravel; strongly acid; abrupt broken boundary.

Bw—5 to 10 inches; dark yellowish brown (10YR 4/4) silt loam; weak very fine subangular blocky structure; very friable; many fine roots; about 2 percent gravel; strongly acid; clear wavy boundary.

E'—10 to 18 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; weak medium platy structure; very friable; common fine roots; about 2 percent gravel; strongly acid; clear wavy boundary.

E/B—18 to 27 inches; 60 percent brown (10YR 5/3) silt loam (E'), very pale brown (10YR 7/3) dry; moderate medium platy structure; very friable; surrounding remnants of dark yellowish brown (10YR 4/4) silt loam (Bt); weak medium prismatic structure parting to weak fine subangular blocky; friable; few prominent reddish brown (5YR 4/3) clay films on faces of peds; few fine roots; few fine prominent strong brown (7.5YR 5/6) and yellowish red (5YR 5/8) masses of iron accumulation; about 3 percent gravel; very strongly acid; clear wavy boundary.

2B/E—27 to 34 inches; 60 percent dark yellowish brown (10YR 4/4) loam (2Bt); weak coarse prismatic structure parting to weak medium subangular blocky; friable; tends to part along horizontal cleavage planes inherited from the parent material; few prominent dark reddish brown (5YR 3/4) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) loam (2E), very pale brown (10YR 7/3) dry; weak medium platy structure; very friable; few fine roots; common fine prominent dark red (2.5YR 3/6) and common medium prominent yellowish red (5YR 5/8) masses of iron accumulation; few fine prominent very dusky red (2.5YR 2/2) concretions (iron and manganese oxides); about 5 percent gravel; very strongly acid; clear wavy boundary.

2Bt—34 to 38 inches; dark yellowish brown (10YR 4/4) sandy loam; weak coarse prismatic structure parting to weak medium subangular blocky; friable; few fine roots; tends to part along horizontal cleavage planes inherited from the parent material; common prominent dark reddish brown (5YR 3/2) clay films in pores and common prominent dark reddish brown (5YR 3/4) clay bridges between mineral grains; few faint brown

(10YR 5/3) coatings of silt and sand, primarily on vertical faces of peds; few fine prominent yellowish red (5YR 5/6) and dark red (2.5YR 3/6) masses of iron accumulation; about 8 percent gravel; very strongly acid; abrupt wavy boundary.

3C—38 to 60 inches; yellowish brown (10YR 5/4), stratified gravelly sand and sand; single grain; loose; about 24 percent gravel as an average; strongly acid.

Range in Characteristics

Thickness of the silty mantle: 12 to 40 inches

Content of gravel: 0 to 5 percent in the silty mantle, 0 to 40 percent in the loamy subsoil, and 3 to 45 percent as a weighted average in the sandy outwash; 0 to 65 percent in individual strata

Content of cobbles: 0 to 5 percent throughout the profile

A horizon:

Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

Ap horizon (if it occurs):

Hue—7.5YR or 10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

E horizon, E' horizon, and E' part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—silt loam

Bw horizon:

Hue—10YR
Value—3 to 6
Chroma—4 to 6
Texture—silt loam

Bt part of glossic horizon:

Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 6
Texture—silt loam

2E part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—2 or 3
Texture—loam, sandy loam, or fine sandy loam or the gravelly or very gravelly analogs of these textures

2Bt horizon and 2Bt part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 or 5
Chroma—4 to 6
Texture—loam, sandy loam, or fine sandy loam or the gravelly or very gravelly analogs of these textures

3C horizon:

Hue—5YR, 7.5YR, or 10YR
Value—4 to 6
Chroma—3 to 8
Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Spencer Series

Typical Pedon

Spencer silt loam, 2,000 feet south and 100 feet east of the northwest corner of sec. 18, T. 34 N., R. 13 W., Barron County, Wisconsin (a representative pedon of Spencer silt loam in Taylor County is in the NE¹/₄SE¹/₄ of sec. 7, T. 31 N., R. 4 W.):

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; common fine and medium roots; neutral; abrupt smooth boundary.

E—9 to 12 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; weak medium platy structure; friable; common fine and medium roots; slightly acid; clear smooth boundary.

E/B—12 to 22 inches; about 70 percent brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; tonguing into or surrounding remnants of dark yellowish brown (10YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; common fine and medium roots; strongly acid; clear smooth boundary.

B/E—22 to 30 inches; about 60 percent dark yellowish brown (10YR 4/4) silt loam (Bt); moderate medium subangular blocky structure; friable; common faint dark yellowish brown (10YR 3/4) clay films on faces of peds; penetrated by tongues of brown (10YR 5/3) silt loam (E), very pale brown (10YR 7/3) dry; moderate medium platy structure; friable; few fine and medium roots; strongly acid; clear smooth boundary.

Bt1—30 to 42 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky

structure; friable; few fine roots; common faint dark yellowish brown (10YR 3/4) clay films on faces of peds; few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 3 percent gravel; strongly acid; clear smooth boundary.

2Bt2—42 to 48 inches; brown (7.5YR 4/4) loam; moderate medium subangular blocky structure; friable; few fine roots; common faint dark reddish brown (5YR 3/4) clay films on faces of peds; few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; about 10 percent gravel and 2 percent cobbles; strongly acid; clear smooth boundary.

2C—48 to 72 inches; reddish brown (5YR 4/4) sandy loam; massive; friable; about 10 percent gravel and 2 percent cobbles; moderately acid.

Range in Characteristics

Thickness of the silty mantle: 36 to 60 inches

Content of gravel: 0 to 10 percent in the silty mantle and 3 to 35 percent in the till

Content of cobbles: 0 to 5 percent throughout the profile

Other features: Some pedons have a Cd horizon below a depth of 60 inches.

Ap horizon:

Hue—10YR

Value—3 or 4

Chroma—2 or 3

Texture—silt loam

A horizon (if it occurs):

Hue—10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam

E horizon and E part of glossic horizon:

Hue—10YR

Value—4 to 6

Chroma—2 or 3

Texture—silt loam or silt

Bt horizon and Bt part of glossic horizon:

Hue—7.5YR or 10YR

Value—3 to 5

Chroma—4 to 6

Texture—silt loam

2Bt horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 6

Chroma—4 to 6

Texture—sandy loam, loam, gravelly sandy loam, or gravelly loam

2C horizon:

Hue—2.5YR, 5YR, or 7.5YR

Value—3 to 6

Chroma—4 to 6

Texture—sandy loam, loam, gravelly sandy loam, or gravelly loam

Tipler Series

Typical Pedon

Tipler sandy loam, 800 feet north and 155 feet west of the southeast corner of sec. 14, T. 37 N., R. 16 E., Forest County, Wisconsin (a representative pedon of Tipler sandy loam in Taylor County is in the NW¹/₄NE¹/₄ of sec. 25, T. 33 N., R. 1 E.):

A—0 to 3 inches; dark brown (7.5YR 3/2) sandy loam, brown (7.5YR 4/2) dry; weak medium subangular blocky structure parting to weak fine granular; friable; many very fine and fine and common medium roots; about 3 percent gravel and 1 percent cobbles; strongly acid; abrupt wavy boundary.

E—3 to 5 inches; brown (7.5YR 5/3) sandy loam, pinkish gray (7.5YR 7/2) dry; weak fine subangular blocky structure parting to weak fine granular; friable; many very fine and fine and common medium roots; 3 percent gravel and about 1 percent cobbles; very strongly acid; abrupt broken boundary.

Bs1—5 to 10 inches; dark brown (7.5YR 3/4) sandy loam; weak medium subangular blocky structure parting to weak fine granular; friable; common very fine and fine and few medium roots; 5 percent gravel and about 1 percent cobbles; very strongly acid; clear wavy boundary.

Bs2—10 to 19 inches; brown (7.5YR 4/4) sandy loam; weak medium subangular blocky structure parting to weak fine granular; few very fine, fine, and medium roots; 5 percent gravel and about 1 percent cobbles; very strongly acid; clear wavy boundary.

B/E—19 to 26 inches; 80 percent brown (7.5YR 4/4) sandy loam (Bt); weak medium subangular blocky structure parting to weak medium platy; friable; common faint brown (7.5YR 4/3) clay films on faces of peds; penetrated by tongues of light brown (7.5YR 6/3) sandy loam (E¹), pink (7.5YR 7/3) dry; weak medium subangular blocky structure parting to weak medium platy; friable; few very fine, fine, and medium roots; 3 percent gravel and about 1 percent cobbles; strongly acid; abrupt wavy boundary.

Bt—26 to 33 inches; strong brown (7.5YR 4/6) sandy loam; weak medium subangular blocky structure; friable; few very fine roots; common distinct brown (7.5YR 4/4) clay films on faces of pedis; common fine distinct yellowish red (5YR 4/6) masses of iron accumulation; 9 percent gravel and about 5 percent cobbles; strongly acid; clear wavy boundary.

2C—33 to 60 inches; brown (7.5YR 5/4), stratified very gravelly coarse sand and gravelly coarse sand; single grain; loose; common fine prominent yellowish red (5YR 5/6) masses of iron accumulation; 34 percent gravel and about 5 percent cobbles as an average; slightly acid.

Range in Characteristics

Thickness of the loamy mantle: 24 to 40 inches

Content of gravel: 0 to 35 percent in the loamy mantle and 3 to 50 percent as a weighted average in the substratum; 0 to 60 percent in individual strata

Content of cobbles: 0 to 5 percent throughout the profile

A horizon:

Hue—5YR, 7.5YR, or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—sandy loam

Ap horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR

Value—3 or 4

Chroma—2 or 3

Texture—sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—dominantly sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures; loamy sand or gravelly loamy sand in some pedons

Bs horizon:

Hue—5YR or 7.5YR

Value—3 to 6

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

E' part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—dominantly sandy loam, fine sandy loam,

or loam or the gravelly analogs of these textures; loamy sand or gravelly loamy sand in some pedons

Bt horizon and Bt part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 or 5

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2C horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—stratified sand or coarse sand or the gravelly or very gravelly analogs of these textures

Withee Series

Typical Pedon

Withee silt loam, 5 feet south and 620 feet west of the northeast corner of sec. 21, T. 25 N., R. 1 W., Clark County, Wisconsin (a representative pedon of Withee silt loam in Taylor County is in the SE¹/₄SE¹/₄ of sec. 23, T. 30 N., R. 2 E.):

Ap—0 to 9 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; moderate medium subangular blocky structure; friable; common fine roots; neutral; abrupt smooth boundary.

E—9 to 14 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; weak medium subangular blocky structure; friable; common fine roots; common medium prominent brownish yellow (10YR 6/8) and few fine prominent reddish yellow (7.5YR 6/8) masses of iron accumulation; few fine faint light brownish gray (10YR 6/2) iron depletions; neutral; clear wavy boundary.

E/B—14 to 18 inches; about 70 percent pale brown (10YR 6/3) silt loam (E), very pale brown (10YR 7/3) dry; weak medium subangular blocky structure; friable; tonguing into and surrounding remnants of light yellowish brown (10YR 6/4) silt loam (Bt); moderate fine and medium subangular blocky structure; friable; few fine roots; few fine faint light brownish gray (10YR 6/2) iron depletions; common medium prominent reddish yellow (7.5YR 6/8) and few medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; clear irregular boundary.

B/E—18 to 24 inches; 60 percent light brown (7.5YR 6/4) silt loam (Bt); moderate medium subangular blocky structure; friable; few faint brown (7.5YR 5/4) clay films on faces of pedis; penetrated by tongues of pale brown (10YR 6/3) silt loam (E), very pale brown (10YR 7/3) dry; weak subangular blocky structure; friable; few fine roots; few fine prominent light brownish gray (10YR 6/2) iron depletions; common medium distinct reddish yellow (7.5YR 6/8) and few medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

2Bt1—24 to 34 inches; reddish brown (5YR 5/3) loam; moderate medium subangular blocky structure; friable; common faint reddish brown (5YR 4/3) clay films on faces of pedis; few faint pale brown (10YR 6/3) clean silt and sand grains coating faces of some pedis; common medium faint reddish gray (5YR 5/2) iron depletions and many coarse prominent brownish yellow (10YR 6/6) masses of iron accumulation; about 3 percent gravel; very strongly acid; abrupt wavy boundary.

2Bt2—34 to 47 inches; reddish brown (5YR 4/4) loam; moderate medium subangular blocky structure; firm; common faint reddish brown (5YR 4/3) clay films on faces of pedis; few pale brown (10YR 6/3) clean silt and sand grains coating faces of some pedis; few medium distinct yellowish red (5YR 5/8) masses of iron accumulation; about 3 percent gravel; very strongly acid; gradual wavy boundary.

2C—47 to 60 inches; reddish brown (5YR 4/4) loam; massive; firm; about 3 percent gravel; very strongly acid.

Range in Characteristics

Thickness of the silty mantle: 12 to 36 inches

Content of gravel: 0 to 10 percent in the silty mantle and 3 to 35 percent in the till

Content of cobbles: 0 to 5 percent in the silty mantle and 0 to 10 percent in the till

Other features: Some pedons have a 2BC horizon.

Ap horizon:

Hue—10YR

Value—3 or 4

Chroma—2 or 3

Texture—silt loam

A horizon (if it occurs):

Hue—10YR

Value—2 or 3

Chroma—1 or 2

Texture—silt loam

E horizon and E part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 to 7

Chroma—2 or 3

Texture—silt loam or silt

Bt part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—silt loam

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR

Value—3 to 5

Chroma—3 to 6 (value and chroma of 3 do not occur in the same pedon)

Texture—dominantly loam, sandy clay loam, or clay loam or the gravelly analogs of these textures; sandy loam or gravelly sandy loam in the lower part in some pedons

2C horizon:

Hue—5YR or 7.5YR

Value—3 to 5

Chroma—4 to 6

Texture—fine sandy loam, sandy loam, loam, sandy clay loam, or clay loam or the gravelly analogs of these textures

Worcester Series

Typical Pedon

Worcester sandy loam, 580 feet east and 35 feet south of the northwest corner of sec. 18, T. 35 N., R. 5 E., Lincoln County, Wisconsin (a representative pedon of Worcester sandy loam in Taylor County is in the NW¹/₄NE¹/₄ of sec. 24, T. 32 N., R. 1 W.):

A—0 to 2 inches; very dark gray (10YR 3/1) sandy loam, gray (10YR 5/1) dry; moderate medium granular structure; very friable; many fine roots; few charcoal fragments; about 2 percent gravel and 2 percent cobbles; very strongly acid; abrupt wavy boundary.

E—2 to 3 inches; brown (7.5YR 4/2) sandy loam, pinkish gray (7.5YR 6/2) dry; weak medium platy structure; very friable; many fine roots; about 2 percent gravel and 2 percent cobbles; very strongly acid; abrupt wavy boundary.

Bhs—3 to 6 inches; dark reddish brown (5YR 3/2) sandy loam; weak very fine subangular blocky structure; very friable; many fine roots; about 3 percent gravel and 2 percent cobbles; very strongly acid; clear wavy boundary.

Bs—6 to 16 inches; brown (7.5YR 4/4) sandy loam; weak fine subangular blocky structure; very friable; many fine roots; few fine prominent yellowish red (5YR 5/6) masses of iron accumulation; about 3 percent gravel and 2 percent cobbles; strongly acid; clear wavy boundary.

B/E—16 to 20 inches; about 70 percent brown (7.5YR 4/4) sandy loam (Bt); weak medium subangular blocky structure; friable; many distinct dark reddish brown (5YR 3/4) clay bridges between mineral grains; penetrated by tongues of brown (7.5YR 5/3) loamy sand (E'), very pale brown (10YR 7/3) dry; weak medium platy structure; very friable; common fine roots; common fine prominent red (2.5YR 4/6) and many medium prominent yellowish red (5YR 5/6) masses of iron accumulation and many medium prominent light brownish gray (10YR 6/2) iron depletions; few fine prominent very dusky red (2.5YR 2/2) concentrations (iron and manganese oxide); about 5 percent gravel and 2 percent cobbles; very strongly acid; clear wavy boundary.

Bt1—20 to 32 inches; brown (7.5YR 4/4) sandy loam; moderate medium subangular blocky structure; friable; common fine roots; few distinct dark reddish brown (5YR 3/4) clay films on faces of pedes and many clay bridges between mineral grains; common fine distinct brown (7.5YR 5/2) iron depletions and prominent yellowish red (5YR 5/6) masses of iron accumulation; about 8 percent gravel and 2 percent cobbles; very strongly acid; abrupt wavy boundary.

2Bt2—32 to 39 inches; strong brown (7.5YR 4/6) gravelly loamy sand; weak fine subangular blocky structure; very friable; few fine roots; common prominent dark reddish brown (5YR 3/4) clay bridges between mineral grains; few medium distinct reddish yellow (7.5YR 6/8) masses of iron accumulation; about 25 percent gravel and 4 percent cobbles; strongly acid; gradual wavy boundary.

2C—39 to 60 inches; yellowish brown (10YR 5/4), stratified gravelly sand and sand; single grain; loose; few medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; about 17 percent gravel as an average and 2 percent cobbles; strongly acid.

Range in Characteristics

Thickness of the loamy mantle: 24 to 40 inches

Content of gravel: 0 to 35 percent in the loamy mantle and 3 to 50 percent as a weighted average in the substratum; 0 to 65 percent in individual strata

Content of cobbles: 0 to 5 percent throughout the profile

A horizon:

Hue—5YR, 7.5YR, or 10YR

Value—2 or 3

Chroma—1 to 3

Texture—sandy loam

Ap horizon (if it occurs):

Hue—7.5YR or 10YR

Value—3 or 4

Chroma—2 or 3

Texture—sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—sandy loam, fine sandy loam, loam, or loamy sand or the gravelly analogs of these textures

Bhs horizon:

Hue—5YR or 7.5YR

Value—2 or 3

Chroma—2 or 3

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

Bs horizon:

Hue—5YR or 7.5YR

Value—3 to 6

Chroma—4 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

E' part of glossic horizon:

Hue—7.5YR or 10YR

Value—4 to 6

Chroma—2 or 3

Texture—sandy loam, fine sandy loam, loam, or loamy sand or the gravelly analogs of these textures

Bt horizon and Bt part of glossic horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR

Value—3 to 6

Chroma—4 to 6

Texture—loamy sand, loamy coarse sand, sand,

or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

2C horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—stratified sand or coarse sand or the gravelly, very gravelly, or extremely gravelly analogs of these textures

Worwood Series

Typical Pedon

Worwood sandy loam, 0 to 3 percent slopes, 2,130 feet west and 180 feet south of the northeast corner of sec. 24, T. 32 N., R. 1 W., Taylor County, Wisconsin:

Oi—0 to 1 inch; slightly decomposed (fibric) plant material, black (7.5YR 2.5/1) broken face and rubbed; about 90 percent fiber, 70 percent rubbed; massive; very friable; many very fine and fine and few medium and coarse roots; about 2 percent gravel; very strongly acid (pH 4.5 in water 1:1); abrupt smooth boundary.

E—1 to 2 inches; brown (7.5YR 4/2) sandy loam, pinkish gray (7.5YR 6/2) dry; weak medium subangular blocky structure; very friable; many very fine and fine and few medium and coarse roots; about 2 percent gravel and 1 percent cobbles; very strongly acid; abrupt broken boundary.

Bs—2 to 10 inches; dark brown (7.5YR 3/4) sandy loam; weak medium subangular blocky structure; very friable; many very fine and fine and few medium and coarse roots; few fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; about 2 percent gravel and 1 percent cobbles; very strongly acid; abrupt wavy boundary.

E/B—10 to 15 inches; about 60 percent brown (7.5YR 5/3) sandy loam (E'), pink (7.5YR 7/3) dry; weak medium platy structure; very friable; tonguing into and surrounding remnants of brown (7.5YR 4/4) sandy loam (Bt); weak medium subangular blocky structure; friable; common very fine and fine and few medium and coarse roots; few fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; about 10 percent gravel and 2 percent cobbles; strongly acid; clear wavy boundary.

B/E—15 to 27 inches; about 60 percent brown (7.5YR 4/4) gravelly sandy loam (Bt); moderate medium subangular blocky structure; friable; few faint

brown (7.5YR 4/3) clay films on faces of some peds; penetrated by tongues of brown (7.5YR 5/3) gravelly sandy loam (E'), pink (7.5YR 7/3) dry; weak medium platy structure; very friable; common very fine and fine and few medium and coarse roots; common medium prominent strong brown (7.5YR 5/8) masses of iron accumulation; about 20 percent gravel and 2 percent cobbles; strongly acid; clear wavy boundary.

2Bt—27 to 38 inches; brown (7.5YR 4/4) gravelly loamy sand; weak medium subangular blocky structure; very friable; few faint brown (7.5YR 4/3) clay bridges between mineral grains; few fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; about 20 percent gravel and 2 percent cobbles; moderately acid; clear wavy boundary.

2C1—38 to 50 inches; brown (7.5YR 4/4), stratified sand and gravelly coarse sand; single grain; loose; few fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; about 20 percent gravel and 2 percent cobbles; slightly acid; abrupt wavy boundary.

3C2—50 to 60 inches; yellowish brown (10YR 5/4) and brown (7.5YR 5/4), stratified fine sandy loam, very fine sandy loam, and silt loam; few thin strata of loamy fine sand and sand; massive; friable; many coarse prominent strong brown (7.5YR 5/8 and 4/6) masses of iron accumulation and few fine distinct light brownish gray (2.5Y 6/2) iron depletions; about 1 percent gravel; slightly acid.

Range in Characteristics

Thickness of the loamy mantle: 24 to 40 inches

Depth to stratified lacustrine deposits: 40 to 60 inches

Content of gravel: 0 to 35 percent in the loamy mantle and 3 to 45 percent in the sandy and gravelly glacial outwash as a weighted average; 0 to 65 percent in individual strata and 0 to 2 percent in the stratified lacustrine deposits

Content of cobbles: 0 to 5 percent throughout the profile

O horizon:

Hue—7.5YR or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—fibric, hemic, or sapric material

A horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR

Value—2 or 3

Chroma—1 or 2

Texture—sandy loam

Ap horizon (if it occurs):

Hue—5YR, 7.5YR, or 10YR
 Value—3 or 4
 Chroma—2 or 3
 Texture—sandy loam

E horizon:

Hue—5YR, 7.5YR, or 10YR
 Value—4 to 6
 Chroma—2 or 3
 Texture—sandy loam

Bs horizon:

Hue—5YR or 7.5YR
 Value—3 to 6
 Chroma—4 to 6
 Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

E' part of glossic horizon:

Hue—5YR, 7.5YR, 10YR
 Value—4 to 6
 Chroma—2 or 3
 Texture—sandy loam, fine sandy loam, loam, or loamy sand or the gravelly analogs of these textures

Bt part of glossic horizon:

Hue—5YR, 7.5YR, 10YR, 2.5Y, or 5Y

Value—4 or 5

Chroma—2 to 6

Texture—sandy loam, fine sandy loam, or loam or the gravelly analogs of these textures

2Bt horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—loamy sand or sand or the gravelly or very gravelly analogs of these textures

2C horizon:

Hue—5YR, 7.5YR, or 10YR

Value—4 to 6

Chroma—3 to 6

Texture—sand or coarse sand or the gravelly or very gravelly analogs of these textures

3C horizon:

Hue—5YR, 7.5YR, 10YR, 2.5Y, or 5Y

Value—4 to 6

Chroma—1 to 6

Texture—stratified silt, silt loam, very fine sandy loam, fine sandy loam, loamy very fine sand, or very fine sand; thin strata of silty clay loam, loam, sandy loam, loamy fine sand, and fine or medium sand in most pedons

Formation of the Soils

Soils form through processes acting on the deposited or accumulated geologic material. The characteristics of the soils at any given point are determined by five major factors—the climate under which the soil material has accumulated and existed since accumulation; the plant and animal life on and in the soil; the relief, or lay of the land; the physical and mineralogical composition of the parent material; and the length of time that the forces of soil formation have acted on the soil material (Simonson, 1959).

Climate and plant and animal life, chiefly plants, are active factors of soil formation. They act on the plant material that has accumulated through the weathering of rocks and slowly change it into a natural body that has genetically related horizons.

The major factors of soil formation are so closely interrelated in their effects on the soil that few generalizations can be made regarding the effect of any one factor unless conditions are specified for the other four.

Climate

Climate directly affects soil formation through the weathering of rocks. It also alters the parent material through the mechanical action of freezing and thawing. It indirectly affects the accumulation of organic matter by supplying energy and a suitable environment for the growth of plant and animal organisms.

Precipitation and temperature are the chief elements of climate responsible for the development of soil features. These elements determine the amount of water available for percolation and the formation and decomposition of organic material, the major processes in the formation of soils.

Percolating water from rainfall and snowmelt affects both the solution and hydration of mineral material and the organic substances. The movement of this water also controls the distribution of substances throughout the soil.

Taylor County has a climate that is characterized by wide variations in temperature from summer to winter. During winter the soil-forming processes are largely

inactive, but some freezing and thawing take place. Frost heave affects profile development.

High temperatures in summer increase the rates of evaporation and transpiration and thus limit the amount of percolating water available for soil formation. Temperature also affects the growth and decomposition of organic material. Decomposition is much slower during cooler periods than during warmer ones.

Wind indirectly affects the moisture content of soils by influencing the rate of evaporation. Also, the wind often blows away soil particles and organic material, thereby eroding the surface layer and depositing the sediment elsewhere as a new parent material.

Climate is modified by variations in slope aspect. The soils on slopes facing south or west are warmed and dried by the sun more thoroughly than those on slopes facing north or east. The soils on the cooler, more humid slopes facing north or east generally contain more moisture than those on other aspects and are frozen for a longer period.

Living Organisms

Living organisms, such as plants, bacteria, fungi, insects, earthworms, and rodents, influence the formation of soils. Plants generally have the greatest influence on soil formation. Plant roots penetrate the soil body, thereby creating channels for percolating water. The roots excrete a number of acid substances that act on rocks and minerals and bring nutrients or mineral substances into solution. These nutrients are absorbed and translocated upward to stems and leaves. When the plants die, the translocated minerals 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 indirectly affect soil formation by modifying the effects of climate. For example, some plants can mitigate the force of the wind, thereby influencing the evaporation rate of percolating water and the decomposition of windblown parent material.

Animals burrow into the soil and mix material in the different layers. Roots and percolating water follow the channels created by the animals. Animal life affects soil structure, helps to decompose organic material, and carries nutrients upward in the soil profile. When the animals die, they contribute to the supply of organic material in the soil.

Human activities recently have had important effects on the soils in the county. The original condition of some soils has been altered by these activities, which include removing the native vegetation, mixing the upper layers through cultivation, and planting crops that are different from the native vegetation. Removal of the native vegetation has accelerated erosion on the sloping soils. The use of heavy tillage and harvesting equipment has compacted the soil. Applications of lime and fertilizer have altered the pH level and fertility of soils. Some cropping practices have reduced the content of organic matter. The content of soil moisture has been altered by artificial drainage. Some of the effects of human activities, such as the addition of fertilizer, pesticide, herbicide, and fungicide, may not be known for many years.

Relief

Relief influences soil formation through its effect on the amount of precipitation absorbed by the soil, on the rate of erosion, and on the translocation of material in suspension or solution from one part of the profile to another. Generally, the steeper soils absorb less water than the less sloping soils because of a higher runoff rate. Consequently, they are well drained and tend to have a thinner solum than that in the less sloping soils and a less well developed profile.

Relief directly affects the external and internal drainage in the soils. Santiago, Freeon, Magnor, and Capitola soils form a drainage sequence pattern in Taylor County. The well drained Santiago soils are on moderately steep side slopes. The moderately well drained Freeon soils are on toeslopes, side slopes, and slightly convex summits and are nearly level to moderately steep. The somewhat poorly drained Magnor soils are on flats and in depressions and drainageways and are nearly level and gently sloping. The poorly drained Capitola soils are in depressions and drainageways. They are nearly level.

Parent Material

Parent material has an effect on the kind of soil that forms and in some places determines the soil properties almost entirely. The parent material in Taylor County consists mostly of glacial materials (including till and outwash) and lacustrine deposits. Some of the soils formed in the more recent deposits of alluvium or in organic material.

The till in the county is unstratified, unsorted drift consisting of clay, silt, sand, gravel, cobbles, stones, and boulders that were transported and deposited by glacial ice. Most of the till is sandy loam, loam, gravelly sandy loam, or gravelly loam. Capitola, Freeon, Magnor, Newood, and Newot soils are examples of soils underlain by sandy loam till. Withee and Marshfield soils are examples of soils underlain by loam till.

Outwash is material deposited by glacial meltwater. It is dominantly sand and gravel. Antigo, Blackriver, Brill, Padus, Ossmer, and Sconsin soils are underlain by outwash.

Lacustrine material was deposited in lake water and exposed when the water level was lowered or the elevation of the land was raised. Comstock and Crystal Lake soils formed in areas where these deposits are dominantly silty. Padwood and Worwood soils formed in areas where the lacustrine deposits are overlain by outwash.

Moppet and Fordum soils formed in recent alluvium along the major drainageways in the county.

The organic soils formed in plant remains that accumulated in swamps or shallow lakes and were preserved under the water. Beseman, Cathro, Loxley, and Lupton soils are examples.

Time

Time is needed for the transformation of the parent material into a soil. The length of time required for horizon differentiation varies. Soils can have horizons that are well developed, poorly developed, or partially developed. The degree of development depends on the length of time that the soil-forming factors have been active. Loyal soils, for example, have distinct horizons and are considered to be mature. Fordum and other soils that formed in recently deposited alluvium, however, show little or no evidence of horizon development.

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Glossary

Ablation till. Loose, permeable till deposited during the final downwasting of glacial ice. Lenses of crudely sorted sand and gravel are common.

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Alpha,alpha-dipyridyl. A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction in which a slope faces.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

Basal till. Compact glacial till deposited beneath the ice.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

Base slope. A geomorphic component of hills consisting of the concave to linear (perpendicular to the contour) slope that, regardless of the lateral shape, forms an apron or wedge at the bottom of a hillside dominated by colluvium and slope-wash sediments (for example, slope alluvium).

Beach deposits. Material, such as sand and gravel, that is generally laid down parallel to an active or relict shoreline of a postglacial or glacial lake.

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 planes. Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bench terrace. A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Blowout. A shallow depression from which all or most of the soil material has been removed by the wind.

A blowout has a flat or irregular floor formed by a resistant layer or by an accumulation of pebbles or cobbles. In some blowouts the water table is exposed.

- Blowout** (map symbol). A small saucer-, cup-, or trough-shaped hollow or depression formed by wind erosion on a preexisting sand deposit. The areas are typically less than 3 acres in size.
- 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.
- Borrow pit** (map symbol). An open excavation from which soil and underlying material have been removed, usually for construction purposes. The areas are typically less than 3 acres in size.
- Bottom land.** The normal flood plain of a stream, subject to flooding.
- Boulders.** Rock fragments larger than 2 feet (60 centimeters) in diameter.
- Brush management.** Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.
- Calcareous soil.** A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.
- Canopy.** The leafy crown of trees or shrubs. (See Crown.)
- Capillary water.** Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.
- Catena.** A sequence, or "chain," of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.
- Cation.** An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.
- Cation-exchange capacity.** The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.
- Channery soil material.** Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.
- Chemical treatment.** Control of unwanted vegetation through the use of chemicals.
- Chiseling.** Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.
- Clay.** As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.
- Clay depletions.** Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.
- Clay film.** A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.
- Claypan.** A slowly permeable soil horizon that contains much more clay than the horizons above it. A claypan is commonly hard when dry and plastic or stiff when wet.
- Climax plant community.** The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.
- Coarse textured soil.** Sand or loamy sand.
- Cobble (or cobblestone).** A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.
- Cobbly soil material.** Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.
- COLE (coefficient of linear extensibility).** See Linear extensibility.
- Colluvium.** Soil material or rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.
- Complex slope.** Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.
- Complex, soil.** A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern

or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Concretions. Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.

Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

Conservation tillage. A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.

Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Coprogenous earth (sedimentary peat). Fecal material deposited in water by aquatic organisms.

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. 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.

Cradle-knoll. A small mound made up of soil material that temporarily clung to the roots when a tree was uprooted.

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.

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 (map symbol). An area where the original soil profile has been altered by the addition or removal of more than about a foot of soil material. The area is typically less than 3 acres in size.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Delta. A body of alluvium having a surface that is nearly flat and fan shaped; deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, generally a sea or lake.

Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

Depression. Any relatively sunken part of the earth's surface; especially a low-lying area surrounded by higher ground. A closed depression has no natural outlet for surface drainage. 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.

Depth to rock (in tables). Bedrock is too near the surface for the specified use.

Disintegration moraine. A drift topography characterized by chaotic mounds and pits, generally randomly oriented, developed in supraglacial drift by collapse and flow as the underlying stagnant ice melted. Slopes may be steep and unstable. Abrupt changes between materials of differing lithology are common.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained*. These classes are defined in the “Soil Survey Manual.”

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. A relatively small, linear depression that, at some time, moves concentrated water and either does not have a defined channel or has only a small defined channel.

Drumlin. A low, smooth, elongated oval hill, mound, or ridge of compact glacial till. The longer axis is parallel to the path of the glacier and commonly has a blunt nose pointing in the direction from which the ice approached.

Duff. A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

End moraine. A ridgelike accumulation that is being or was produced at the outer margin of an actively flowing glacier at any given time.

Endosaturation. A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.

Eolian deposits. Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.

Ephemeral stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

Episaturation. A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Erosion pavement. A layer of gravel or stones that remains on the surface after fine particles are removed by sheet or rill erosion.

Escarpment. A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Synonym: scarp.

Escarpment, bedrock (map symbol). A relatively continuous and steep slope or cliff, produced by erosion or faulting, that breaks the general continuity of more gently sloping land surfaces. Exposed material is hard or soft bedrock.

Escarpment, other than bedrock (map symbol). A relatively continuous and steep slope or cliff that is generally produced by erosion but can be produced by faulting and that breaks the general continuity of more gently sloping land surfaces. Exposed nonbedrock material is nonsoil or is very shallow, poorly developed soil.

Esker. A narrow, winding ridge of stratified gravelly and sandy drift deposited by a stream flowing in a tunnel beneath a glacier.

Fan terrace. A relict alluvial fan, no longer a site of active deposition, incised by younger and lower alluvial surfaces.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when

light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the oven-dry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity*, *normal moisture capacity*, or *capillary capacity*.

Fine textured soil. Sandy clay, silty clay, or clay.

Firebreak. An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of firefighters and equipment. Designated roads also serve as firebreaks.

First bottom. The normal flood plain of a stream, subject to frequent or occasional flooding.

Flaggy soil material. Material that has, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.

Flagstone. A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.

Flood plain. A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

Fluvial. Of or pertaining to rivers; produced by river action, as a fluvial plain.

Footslope. The position that forms the inner, gently inclined surface at the base of a hillslope. In profile, footslopes are commonly concave. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest habitat type. An association of dominant tree and ground flora species in a climax community.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Frost action (in tables). Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Geomorphology. The science that treats the general configuration of the earth's surface; specifically the study of the classification, description, nature, origin, and development of landforms and their relationships to underlying structures, and the history of geologic changes as recorded by these surface features. The term is especially applied to the genetic interpretation of landforms.

Glacial drift. Pulverized and other rock material transported by glacial ice and then deposited. Also, the sorted and unsorted material deposited by streams flowing from glaciers.

Glacial outwash. Gravel, sand, and silt, commonly stratified, deposited by glacial meltwater.

Glaciofluvial deposits. Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and occur as kames, eskers, deltas, and outwash plains.

Glaciolacustrine deposits. Material ranging from fine clay to sand derived from glaciers and deposited in glacial lakes mainly by glacial meltwater. Many deposits are interbedded or laminated.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Graded stripcropping. Growing crops in strips that grade toward a protected waterway.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

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 3 acres in size.

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 of soil in which the surface layer has more than 35 percent, by volume, rock fragments that are mostly less than 3 inches in diameter. The area is typically less than 3 acres in size.

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 (map symbol). A very small channel with steep sides cut by running water and through which water ordinarily runs only after a rain or an ice or snow melt. Generally is an obstacle to wheeled vehicles and is too deep to be obliterated 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.

Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.

Head slope. A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

Herbaceous peat. An accumulation of organic material, decomposed to some degree, that is predominantly the remains of sedges, reeds, cattails, and other herbaceous plants.

High-chroma zones. Zones having chroma of 3 or more. Typical color in areas of iron concentrations.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue

from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A natural elevation of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil.

The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Ice-walled lake plain. A relict surface marking the floor of an extinct lake basin that was formed on solid ground and surrounded by stagnant ice in a stable or unstable superglacial environment on stagnation moraines. As the ice melted, the lake plain became perched above the adjacent landscape. The lake plain is well sorted, generally fine textured, stratified deposits.

Igneous rock. Rock formed by solidification from a molten or partially molten state. Major varieties include plutonic and volcanic rock. Examples are andesite, basalt, and granite.

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

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

Interfluv. An elevated area between two drainageways that sheds water to those drainageways.

Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Iron concentrations. High-chroma zones having a high content of iron and manganese oxide because of chemical oxidation and accumulation but having a clay content similar to that of the adjacent matrix. A type of redoximorphic concentration.

Iron depletions. Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface

through pipes or nozzles from a pressure system.
Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

- Island** (map symbol). A small area of soil within a body of water and above the normal water level. The island is a relatively permanent feature. The areas are typically less than 3 acres in size.
- Kame**. An irregular, short ridge or hill of stratified glacial drift.
- Kame moraine**. An end moraine that contains numerous kames. A group of kames along the front of a stagnant glacier, commonly comprising the slumped remnants of a formerly continuous outwash plain built up over the foot of rapidly wasting or stagnant ice.
- Karst** (topography). The relief of an area underlain by limestone that dissolves in differing degrees, thus forming numerous depressions or small basins.
- Knoll**. A small, low, rounded hill rising above adjacent landforms.
- K_{sat} . Saturated hydraulic conductivity. (See Permeability.)
- Lacustrine deposit**. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.
- Lake bed**. The bottom of a lake; a lake basin.
- Lake plain**. A nearly level surface marking the floor of an extinct lake filled by well sorted, generally fine textured, stratified deposits, commonly containing varves.
- Lake terrace**. A narrow shelf, partly cut and partly built, produced along a lakeshore in front of a scarp line of low cliffs and later exposed when the water level falls.
- Lakeshore**. A narrow strip of land in contact with or bordering a lake; especially the beach of a lake.
- Landfill** (map symbol). An area of accumulated waste products of human habitation. Can be above or below natural ground level. The area is typically less than 3 acres in size.
- Landslide**. The rapid downhill movement of a mass of soil and loose rock, generally when wet or saturated. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.
- Large stones** (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.
- Leaching**. The removal of soluble material from soil or other material by percolating water.

Levee (map symbol). An embankment built to confine or control water, especially one built 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. Fine grained material, dominantly of silt-sized particles, deposited by wind.

Low strength. The soil is not strong enough to support loads.

Low-chroma zones. Zones having chroma of 2 or less. Typical color in areas of iron depletions.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Marl. An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal amounts.

Masses. Concentrations of substances in the soil matrix that do not have a clearly defined boundary with the surrounding soil material and cannot be removed as a discrete unit. Common compounds making up masses are calcium carbonate, gypsum or other soluble salts, iron oxide, and manganese oxide. Masses consisting of iron oxide or manganese oxide generally are considered a type of redoximorphic concentration.

Mechanical treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.

Mine or quarry (map symbol). An open excavation

from which soil and underlying material have been removed and in which the bedrock is exposed. Also used to denote surface openings to underground mines. The areas are typically less than 3 acres in size.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. An area that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

Moraine. An accumulation of earth, stones, and other debris deposited by a glacier. Some types are terminal, lateral, medial, and ground.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few*, *common*, and *many*; size—*fine*, *medium*, and *coarse*; and contrast—*faint*, *distinct*, and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Mucky peat. Unconsolidated soil material consisting primarily of organic matter that is in an intermediate stage of decomposition such that a significant part of the material can be recognized and a significant part of the material cannot be recognized.

Mudstone. Sedimentary rock formed by induration of silt and clay in approximately equal amounts.

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)

Nodules. Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.

Nose slope. A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent.

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Outwash plain. A landform of mainly sandy or coarse textured material of glaciofluvial origin. An outwash plain is commonly smooth; where pitted, it generally is low in relief.

Paleoterrace. An erosional remnant of a terrace that retains the surface form and alluvial deposits of its origin but was not emplaced by, and commonly does not grade to, a present-day stream or drainage network.

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan*, *fragipan*, *claypan*, *plowpan*, and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedisediment. A thin layer of alluvial material that mantles an erosion surface and has been transported to its present position from higher lying areas of the erosion surface.

Pedon. The smallest volume that can be called “a soil.”

A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Perennial water (map symbol). A small natural or manmade lake, pond, or pit that contains water most of the year. The areas are typically less than 3 acres in size.

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.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plateau. An extensive upland mass with relatively flat summit area that is considerably elevated (more than 100 meters) above adjacent lowlands and

separated from them on one or more sides by escarpments.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Poletimber. Hardwood trees ranging from 5 to 11 inches 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.

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.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Redoximorphic concentrations. Nodules, concretions, soft masses, pore linings, and other

features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.

Redoximorphic depletions. Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been removed. These zones are indications of the chemical reduction of iron resulting from saturation.

Redoximorphic features. Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha,alpha-dipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.

Reduced matrix. A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.

Regolith. The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.

Relief. The elevations or inequalities of a land surface, considered collectively.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.

Rill. A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.

Rise. A slight increase in elevation of the land surface, typically with a broad summit and gently sloping sides.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

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. The areas are typically less than 3 acres in size.

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 of soil in which the surface layer contains more than 75 percent sand and where the named soils of the surrounding map unit have less than about 25 percent sand. The area is typically less than 3 acres in size.

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.

Saprolite. Unconsolidated residual material underlying the soil and grading to hard bedrock below.

Saturated hydraulic conductivity (K_{sat}). See Permeability.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Sawtimber. Hardwood trees more than 11 inches 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.

Second bottom. The first terrace above the normal flood plain (or first bottom) of a river.

Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.

Seedling. A tree less than 1 inch in diameter at breast height.

Seepage (in tables). The movement of water through

the soil. Seepage adversely affects the specified use.

Sequum. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock formed by the hardening of a clay deposit.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Short, steep slope (map symbol). A narrow area that has slopes at least two slope classes steeper than the slope class of the surrounding map unit. The area is typically less than 3 acres in size.

Shoulder. The position that forms the uppermost inclined surface near the top of a hillslope. It is a transition from backslope to summit. The surface is dominantly convex in profile and erosional in origin.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Side slope. A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel.

Silica. A combination of silicon and oxygen. The mineral form is called quartz.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. Sedimentary rock made up of dominantly silt-sized particles.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Sinkhole. A depression in the landscape where limestone has been dissolved.

Sinkhole (map symbol). A closed depression formed either by solution of the surficial rock or by collapse of underlying caves. Complexes of sinkholes in carbonate-rock terrain are the main components of karst topography. The areas are typically less than 3 acres in size.

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 (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Sloughed till. Water-saturated till that has flowed slowly downhill from its original place of deposit by glacial ice. It may rest on other till, on glacial outwash, or on a glaciolacustrine deposit.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Sodium adsorption ratio (SAR). A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and

plant and animal activities are largely confined to the solum.

Spoil area (map symbol). Piles of earthy materials, either smoothed or uneven, resulting from human activity. The areas are typically less than 3 acres in size.

Stagnation moraine. A body of drift released by the melting of a glacier that ceased flowing. Commonly, but not always, occurs near ice margins; composed of till, ice-contact stratified drift, and small areas of glacial lake sediment. Typical landforms are knob-and-kettle topography, locally including ice-walled lake plains.

Stone line. A concentration of rock fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediment of variable thickness.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grain* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsidence. The potential decrease in surface elevation as a result of the drainage of wet soils that have organic layers or semi-fluid, mineral layers. Subsidence, as a result of drainage, is attributed to (1) shrinkage from drying, (2) consolidation because of the loss of ground-water buoyancy, (3) compaction from tillage or manipulation, (4) wind erosion, (5) burning, or (6) biochemical oxidation.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter 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 resulting from uneven glacial deposition.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terminal moraine. A belt of thick glacial drift that generally marks the termination of important glacial advances.

Terrace. An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand*, *loamy sand*, *sandy loam*, *loam*, *silt loam*, *silt*, *sandy clay loam*, *clay loam*, *silty clay loam*, *sandy clay*, *silty clay*, and *clay*. The sand, loamy sand, and sandy loam

classes may be further divided by specifying “coarse,” “fine,” or “very fine.”

Thin layer (in tables). Otherwise suitable soil material that is too thin for the specified use.

Till. Unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice.

Till plain. An extensive area of nearly level to undulating soils underlain by glacial till.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. The position that forms the gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Trace elements. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.

Upland. Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Valley fill. In glaciated regions, material deposited in stream valleys by glacial meltwater. In nonglaciated regions, alluvium deposited by heavily loaded streams.

Variagation. 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 more than 3 percent of the surface is covered with rock fragments larger than 10 inches in diameter. The area is typically less than 3 acres in size.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wet spot (map symbol). An area of somewhat poorly drained to very poorly drained soils at least two drainage classes wetter than the named soils in the surrounding map unit. The area is typically less than 3 acres in size.

Wilting point (or permanent wilting point). The moisture content of soil, on an oven-dry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Windthrow. The uprooting and tipping over of trees by the wind.

Woody peat. An accumulation of organic material that is predominantly composed of trees, shrubs, and other woody plants.

Tables

Table 1.--Temperature and Precipitation
(Recorded in the period 1971-2000 at Medford, Wisconsin)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	2 years in 10 will have--		Average number of growing degree days*	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more	Average snowfall
				Maximum temperature higher than--	Minimum temperature lower than--			Less than--	More than--		
°F	°F	°F	°F	°F	Units	In	In	In		In	
January----	19.8	-0.2	9.8	42	-31	0	1.18	0.49	1.83	4	10.1
February---	26.2	5.4	15.8	48	-28	0	.91	.30	1.44	2	5.8
March-----	36.9	17.7	27.3	65	-14	19	1.87	.81	2.93	4	7.1
April-----	52.4	31.2	41.8	80	9	149	2.51	1.57	3.41	6	1.6
May-----	66.5	43.1	54.8	86	25	462	3.16	1.86	4.40	6	.0
June-----	74.4	52.1	63.2	90	33	697	4.44	2.41	6.27	7	.0
July-----	78.7	56.9	67.8	92	42	862	3.97	2.37	5.32	7	.0
August-----	76.6	55.0	65.8	91	38	800	4.68	2.87	6.47	7	.0
September--	67.3	45.7	56.5	87	27	495	4.55	2.53	6.52	7	.0
October----	55.0	34.4	44.7	78	15	193	2.60	1.34	3.82	5	.4
November---	37.9	22.2	30.0	64	-6	26	2.13	1.01	3.16	5	4.0
December---	24.4	7.1	15.8	46	-23	1	1.28	.65	1.82	4	8.8
Yearly:											
Average---	51.3	30.9	41.1	---	---	---	---	---	---	---	---
Extreme---	98	-38	---	93	-32	---	---	---	---	---	---
Total-----	---	---	---	---	---	3,706	33.27	27.45	38.71	64	37.9

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (40 degrees F).

Table 2.--Freeze Dates in Spring and Fall
(Recorded in the period 1971-2000 at Medford, 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--	May 3	May 16	June 2
2 years in 10 later than--	Apr. 29	May 11	May 28
5 years in 10 later than--	Apr. 20	May 3	May 18
First freezing temperature in fall:			
1 year in 10 earlier than--	Sept. 30	Sept. 19	Sept. 8
2 years in 10 earlier than--	Oct. 5	Sept. 23	Sept. 13
5 years in 10 earlier than--	Oct. 15	Oct. 1	Sept. 22

Table 3.--Growing Season
(Recorded in the period 1971-2000 at Medford, 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	159	134	108
8 years in 10	166	141	115
5 years in 10	181	154	129
2 years in 10	195	167	143
1 year in 10	202	174	150

Table 4.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
22A	Comstock silt loam, 0 to 3 percent slopes-----	7,688	1.2
24A	Poskin silt loam, 0 to 3 percent slopes-----	11,837	1.9
43B	Antigo silt loam, 1 to 6 percent slopes-----	728	0.1
43C	Antigo silt loam, 6 to 15 percent slopes-----	1,466	0.2
43D	Antigo silt loam, 15 to 30 percent slopes-----	315	*
48B	Brill silt loam, 1 to 6 percent slopes-----	2,277	0.4
57B	Spencer silt loam, 1 to 6 percent slopes-----	1,105	0.2
59A	Almena silt loam, 0 to 3 percent slopes-----	25,418	4.0
63B	Crystal Lake silt loam, 2 to 6 percent slopes-----	956	0.2
63C	Crystal Lake silt loam, 6 to 12 percent slopes-----	116	*
63D	Crystal Lake silt loam, 12 to 20 percent slopes-----	59	*
63E	Crystal Lake silt loam, 20 to 35 percent slopes-----	68	*
77A	Auburndale silt loam, 0 to 2 percent slopes-----	8,488	1.4
182B	Padus sandy loam, 0 to 6 percent slopes-----	44	*
182C	Padus sandy loam, 6 to 15 percent slopes-----	125	*
182D	Padus sandy loam, 15 to 30 percent slopes-----	28	*
192A	Worcester sandy loam, 0 to 3 percent slopes-----	365	*
193A	Minocqua muck, 0 to 2 percent slopes-----	176	*
215B	Pence sandy loam, 0 to 6 percent slopes-----	909	0.1
215C	Pence sandy loam, 6 to 15 percent slopes-----	435	*
215D	Pence sandy loam, 15 to 30 percent slopes-----	158	*
308B	Blackriver silt loam, 1 to 6 percent slopes-----	1,143	0.2
315A	Rib silt loam, 0 to 2 percent slopes-----	9,621	1.5
324A	Maplehurst silt loam, 0 to 3 percent slopes-----	11,780	1.9
337A	Plover fine sandy loam, 0 to 3 percent slopes-----	48	*
345B	Freeon, very stony-Sconsin complex, 2 to 6 percent slopes-----	2,897	0.5
346E	Newot-Pence complex, 15 to 45 percent slopes, very stony-----	3,949	0.6
355B	Loyal silt loam, 1 to 6 percent slopes-----	7,003	1.1
355C	Loyal silt loam, 6 to 12 percent slopes-----	524	*
356A	Withee silt loam, 0 to 3 percent slopes-----	35,556	5.7
357A	Marshfield silt loam, 0 to 2 percent slopes-----	8,765	1.4
408A	Lupton and Cathro soils, 0 to 1 percent slopes-----	53,358	8.5
414A	Loxley and Beseman soils, 0 to 1 percent slopes-----	13,362	2.1
457B	Freeon, very stony-Freeon complex, ground moraine, 1 to 6 percent slopes	22,170	3.5
457C	Freeon, very stony-Freeon complex, ground moraine, 6 to 12 percent slopes	4,472	0.7
515A	Manitowish sandy loam, 0 to 3 percent slopes-----	91	*
525B	Newood, very stony-Padwood-Tipler complex, 2 to 6 percent slopes-----	987	0.2
527B	Padwood sandy loam, 0 to 6 percent slopes-----	104	*
537D	Newot, very stony-Newood, very stony-Cathro complex, 0 to 35 percent slopes-----	23,409	3.7
545C	Freeon, very stony-Antigo complex, 6 to 15 percent slopes-----	2,221	0.4
555A	Fordum silt loam, 0 to 2 percent slopes-----	10,516	1.7
560A	Worwood sandy loam, 0 to 3 percent slopes-----	69	*
571E	Pelissier gravelly sandy loam, 15 to 45 percent slopes-----	69	*
612A	Magnor, very stony-Ossmer complex, 0 to 3 percent slopes-----	3,432	0.5
623A	Capitola muck, 0 to 2 percent slopes, very stony-----	3,196	0.5
624A	Ossmer silt loam, 0 to 3 percent slopes-----	1,255	0.2
632B	Aftad fine sandy loam, 2 to 6 percent slopes-----	110	*
637B	Newood sandy loam, 2 to 6 percent slopes, very stony-----	1,402	0.2
637C	Newood sandy loam, 6 to 15 percent slopes, very stony-----	2,126	0.3
642B	Pesabic-Capitola-Newood complex, 0 to 6 percent slopes, very stony-----	1,077	0.2
648B	Sconsin silt loam, 1 to 6 percent slopes-----	2,648	0.4
683A	Tipler sandy loam, 0 to 3 percent slopes-----	176	*
737D	Santiago silt loam, 15 to 30 percent slopes, very stony-----	368	*
748A	Brander silt loam, 0 to 3 percent slopes-----	2,334	0.4
755A	Moppet-Fordum complex, 0 to 3 percent slopes-----	6,348	1.0
757B	Magnor-Freeon complex, 0 to 6 percent slopes, very stony-----	37,909	6.0
766A	Moppet fine sandy loam, 0 to 3 percent slopes-----	401	*
822A	Comstock-Magnor, very stony-Ossmer complex, 0 to 3 percent slopes-----	6,083	1.0
837E	Newot sandy loam, 15 to 45 percent slopes, very stony-----	1,983	0.3
848A	Ribriver silt loam, 0 to 3 percent slopes-----	489	*
863B	Crystal Lake-Freeon, very stony-Sconsin complex, 2 to 6 percent slopes---	4,214	0.7

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
923A	Capitola-Cebana complex, 0 to 2 percent slopes, very stony-----	28,419	4.5
956B	Magnor silt loam, end moraine, 0 to 4 percent slopes, very stony-----	2,895	0.5
957B	Freeon silt loam, end moraine, 2 to 6 percent slopes, very stony-----	1,508	0.2
957C	Freeon silt loam, end moraine, 6 to 15 percent slopes, very stony-----	886	0.1
2015	Pits-----	1,226	0.2
3011A	Barronett silt loam, 0 to 2 percent slopes-----	4,076	0.6
3456A	Magnor, very stony-Magnor complex, ground moraine, 0 to 3 percent slopes	95,364	15.2
3525C	Newood, very stony-Padwood-Padus complex, 6 to 15 percent slopes-----	1,514	0.2
3546C	Newood-Pence complex, 6 to 15 percent slopes, very stony-----	2,815	0.4
3556C	Newood, very stony-Magnor, very stony-Cathro complex, 0 to 15 percent slopes-----	21,343	3.4
3561A	Pesabic, very stony-Worwood-Worcester complex, 0 to 3 percent slopes-----	245	*
3569C	Newood, very stony-Pesabic, very stony-Cathro complex, 0 to 15 percent slopes-----	21,416	3.4
3666B	Pesabic sandy loam, 0 to 4 percent slopes, very stony-----	261	*
3863C	Crystal Lake-Freeon, very stony-Antigo complex, 6 to 15 percent slopes---	2,394	0.4
9052A	Cathro-Capitola, very stony-Lupton complex, 0 to 1 percent slopes-----	17,703	2.8
9055A	Loxley peat, 0 to 1 percent slopes-----	4,992	0.8
9060D	Pelissier sandy loam, 20 to 45 percent slopes-----	862	0.1
9071B	Freeon silt loam, 5 to 10 percent slopes, very stony-----	6,581	1.0
9077C	Freeon silt loam, 10 to 20 percent slopes, very stony-----	1,004	0.2
9078A	Freeon, very stony-Magnor, very stony-Ossmer complex, 0 to 5 percent slopes-----	4,819	0.8
9081C	Newot sandy loam, 10 to 30 percent slopes, very stony-----	22,034	3.5
9082B	Newood sandy loam, 5 to 10 percent slopes, very stony-----	5,352	0.9
9083A	Crystal Lake silt loam, 0 to 5 percent slopes-----	2,179	0.3
9083B	Crystal Lake silt loam, 5 to 10 percent slopes-----	612	*
9086A	Freeon silt loam, 0 to 5 percent slopes, very stony-----	642	0.1
9087C	Crystal Lake-Freeon, very stony-Newot, very stony, complex, 10 to 20 percent slopes-----	3,345	0.5
9088A	Newood-Capitola complex, 0 to 5 percent slopes, very stony-----	2,433	0.4
9089B	Newood, very stony-Lupton complex, 0 to 10 percent slopes-----	1,760	0.3
9090C	Newood, very stony-Newot, very stony-Lupton complex, 0 to 30 percent slopes-----	6,014	1.0
9092D	Newot sandy loam, 20 to 45 percent slopes, very stony-----	835	0.1
9093C	Pence-Padus complex, 10 to 30 percent slopes-----	1,238	0.2
9096C	Newot, very stony-Pesabic, very stony-Lupton complex, 0 to 30 percent slopes-----	792	0.1
9097B	Newood-Padus complex, 5 to 10 percent slopes, very stony-----	997	0.2
9098A	Oesterle loam, 0 to 3 percent slopes-----	537	*
9099B	Antigo silt loam, 5 to 10 percent slopes-----	328	*
9197C	Pelissier very cobbly sandy loam, 10 to 30 percent slopes-----	501	*
M-W	Miscellaneous water-----	27	*
W	Water-----	8,163	1.3
	Total-----	628,538	100.0

* Less than 0.1 percent.

Table 5.--Cropland Management Considerations

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

Map symbol and soil name	Cropland management considerations
22A: Comstock-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
24A: Poskin-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
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
43D: Antigo-----	Slope Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion
48B: Brill-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
57B: Spencer-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
59A: Almena-----	Acid soil Potential for ground-water contamination Potential for surface-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 5.--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
63D: Crystal Lake-----	Acid soil Slope Potential for ground-water contamination Potential for surface-water contamination Water erosion
63E: Crystal Lake-----	Acid soil Slope Potential for ground-water contamination Potential for surface-water contamination Water erosion
77A: Auburndale-----	Acid soil Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
182B: Padus-----	Acid soil Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
182C: Padus-----	Acid soil Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
182D: Padus-----	Acid soil Slope Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
192A: Worcester-----	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
193A: Minocqua-----	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
215B: Pence-----	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
215C: Pence-----	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
215D: Pence-----	Acid soil Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
308B: Blackriver-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
315A: Rib-----	Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
324A: Maplehurst-----	Excessive permeability 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

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
345B: Freeon, 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
Sconsin-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
346E: Newot, very stony-----	Acid soil Slope Dense layer Limited available water capacity Limited content of organic matter Potential for surface-water contamination Restricted permeability Surface stones Water erosion
Pence, very stony-----	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
355B: Loyal-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
355C: Loyal-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
356A: Withee-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
357A: Marshfield-----	Acid soil Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
408A:	
Lupton-----	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
414A:	
Loxley-----	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Beseman-----	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
457B:	
Freeon, 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
Freeon-----	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status
457C:	
Freeon, 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
Freeon-----	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
515A: Manitowish-----	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
525B: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Padwood-----	Acid soil Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
Tipler-----	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
527B: Padwood-----	Acid soil Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
537D: Newot, very stony-----	Acid soil Slope Dense layer Limited available water capacity Limited content of organic matter Potential for surface-water contamination Restricted permeability Surface stones Water erosion
Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
537D: Cathro-----	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
545C: Freeon, 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
Antigo-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion
555A: Fordum-----	Flooding Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
560A: Worwood-----	Acid soil Excessive permeability Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
571E: Pelissier-----	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
612A: Magnor, very stony-----	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Wet soil moisture status
Ossmer-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
623A: Capitola, very stony-----	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
632B: Aftad-----	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
637B: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
637C: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
642B: Pesabic, very stony-----	Dense layer Limited available water capacity 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
Capitola, very stony-----	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

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
642B: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
648B: Sconsin-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
683A: Tipler-----	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
737D: Santiago, very stony-----	Slope Dense layer Potential for surface-water contamination Restricted permeability Surface stones Water erosion
748A: Brander-----	Excessive permeability Potential for ground-water contamination Wet soil moisture status
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
757B: 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

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
757B: Freeon, 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
Freeon-----	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Water erosion Wet soil moisture status
766A: Moppet-----	Acid soil Flooding Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wind erosion
822A: Comstock-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Magnor, very stony-----	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Wet soil moisture status
Ossmer-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
837E: Newot, very stony-----	Acid soil Slope Dense layer Limited available water capacity Limited content of organic matter Potential for surface-water contamination Restricted permeability Surface stones Water erosion

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
848A: Ribriver-----	Excessive permeability Potential for ground-water contamination Wet soil moisture status
863B: Crystal Lake-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
Freeon, 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
Sconsin-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
923A: Capitola, very stony-----	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
Cebana, very stony-----	Dense layer Ponding Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Wet soil moisture status
956B: 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
957B: Freeon, 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 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
957C: Freeon, 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
2015: Pits-----	Not applicable
3011A: Barronett-----	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
3456A: Magnor, very stony-----	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Wet soil moisture status
Magnor-----	Acid soil Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Wet soil moisture status
3525C: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Padwood-----	Acid soil Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status Wind erosion
Padus-----	Acid soil Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
3546C: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Pence, very stony-----	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
3556C: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
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
Cathro-----	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
3561A: Pesabic, very stony-----	Dense layer Limited available water capacity 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
Worwood-----	Acid soil Excessive permeability Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
3561A: Worcester-----	Acid soil Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
3569C: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Pesabic, very stony-----	Dense layer Limited available water capacity 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
Cathro-----	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
3666B: Pesabic, very stony-----	Dense layer Limited available water capacity 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
3863C: Crystal Lake-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
Freeon, 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 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
3863C: Antigo-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion
9052A: Cathro-----	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Capitola, very stony-----	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
Lupton-----	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
9055A: Loxley-----	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
9060D: Pelissier-----	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
9071B: Freeon, 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 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
9077C: Freeon, very stony-----	Acid soil Slope Dense layer Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
9078A: Freeon, 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, 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
Ossmer-----	Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
9081C: Newot, very stony-----	Acid soil Slope Dense layer Limited available water capacity Limited content of organic matter Potential for surface-water contamination Restricted permeability Surface stones Water erosion
9082B: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
9083A: Crystal Lake-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
9083B: Crystal Lake-----	Acid soil Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
9086A: Freeon, 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
9087C: Crystal Lake-----	Acid soil Slope Potential for ground-water contamination Potential for surface-water contamination Water erosion Wet soil moisture status
Freeon, 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
Newot, very stony-----	Acid soil Slope Dense layer Limited available water capacity Limited content of organic matter Potential for surface-water contamination Restricted permeability Surface stones Water erosion
9088A: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Capitola, very stony-----	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

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
9089B: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Lupton-----	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
9090C: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Newot, very stony-----	Acid soil Slope Dense layer Limited available water capacity Limited content of organic matter Potential for surface-water contamination Restricted permeability Surface stones Water erosion
Lupton-----	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
9092D: Newot, very stony-----	Acid soil Slope Dense layer Limited available water capacity Limited content of organic matter Potential for surface-water contamination Restricted permeability Surface stones Water erosion
9093C: Pence-----	Acid soil Slope Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
9093C: Padus-----	Acid soil Slope Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
9096C: Newot, very stony-----	Acid soil Slope Dense layer Limited available water capacity Limited content of organic matter Potential for surface-water contamination Restricted permeability Surface stones Water erosion
Pesabic, very stony-----	Dense layer Limited available water capacity 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
Lupton-----	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
9097B: Newood, very stony-----	Acid soil Dense layer Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Restricted permeability Surface stones Water erosion Wet soil moisture status
Padus, very stony-----	Acid soil Excessive permeability Potential for ground-water contamination Potential for surface-water contamination Surface stones Water erosion Wind erosion
9098A: Oesterle-----	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 5.--Cropland Management Considerations--Continued

Map symbol and soil name	Cropland management considerations
9099B: Antigo-----	Excessive permeability Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion
9197C: Pelissier-----	Acid soil Slope Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Surface rock fragments Water erosion
M-W: Miscellaneous water-----	Not applicable
W: Water-----	Not applicable

Table 6a.--Land Capability and Yields per Acre of Crops

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. 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
22A: Comstock-----	2w	4.2	105	16	75	36
24A: Poskin-----	2w	4.0	100	15	75	34
43B: Antigo-----	2e	3.8	95	15	70	32
43C: Antigo-----	3e	3.6	90	14	70	30
43D: Antigo-----	6e	3.4	85	14	65	28
48B: Brill-----	2e	4.0	100	15	75	34
57B: Spencer-----	2e	4.4	110	16	75	38
59A: Almena-----	2w	4.2	105	16	75	36
63B: Crystal Lake-----	2e	4.4	110	16	75	38
63C: Crystal Lake-----	3e	4.2	105	16	75	36
63D: Crystal Lake-----	4e	4.0	100	15	75	34
63E: Crystal Lake-----	6e	3.8	95	15	70	32
77A: Auburndale-----	6w	---	---	---	---	---
182B: Padus-----	2e	3.8	95	15	70	32
182C: Padus-----	3e	3.6	90	14	70	30
182D: Padus-----	6e	3.4	85	14	65	28
192A: Worcester-----	2w	3.2	80	13	65	26
193A: Minocqua-----	6w	---	---	---	---	---
215B: Pence-----	3s	2.6	65	12	55	20

Table 6a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
215C: Pence-----	4e	2.4	60	11	55	18
215D: Pence-----	6e	2.2	55	11	50	16
308B: Blackriver-----	2e	4.4	110	16	75	38
315A: Rib-----	6w	---	---	---	---	---
324A: Maplehurst-----	2w	4.2	105	16	75	36
337A: Plover-----	2w	3.6	90	14	70	30
345B: Freeon, very stony-----	4s	4.2	105	16	75	36
Sconsin-----	2e	4.0	100	15	75	34
346E: Newot, very stony-----	7s	---	---	---	---	---
Pence, very stony-----	7s	---	---	---	---	---
355B: Loyal-----	2e	4.4	110	16	75	38
355C: Loyal-----	3e	4.2	105	16	75	36
356A: Withee-----	2w	4.2	105	16	75	36
357A: Marshfield-----	6w	---	---	---	---	---
408A: Lupton-----	6w	---	---	---	---	---
Cathro-----	6w	---	---	---	---	---
414A: Loxley-----	7w	---	---	---	---	---
Beseman-----	7w	---	---	---	---	---
457B: Freeon, very stony-----	4s	---	---	---	---	---
Freeon-----	2e	4.2	105	16	75	36
457C: Freeon, very stony-----	6s	---	---	---	---	---
Freeon-----	3e	4.0	100	15	75	34
515A: Manitowish-----	3s	2.4	60	11	55	18

Table 6a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
525B:						
Newood, very stony-----	4s	3.6	90	14	70	30
Padwood-----	2e	3.8	95	15	70	32
Tipler-----	2s	3.8	95	15	70	32
527B:						
Padwood-----	2e	3.8	95	15	70	32
537D:						
Newot, very stony-----	7s	3.0	75	13	60	24
Newood, very stony-----	6s	3.4	85	14	65	28
Cathro-----	6w	---	---	---	---	---
545C:						
Freeon, very stony-----	6s	4.0	100	15	75	34
Antigo-----	3e	3.6	90	14	70	30
555A:						
Fordum-----	6w	---	---	---	---	---
560A:						
Worwood-----	2w	3.6	90	14	70	30
571E:						
Pelissier-----	7s	---	---	---	---	---
612A:						
Magnor, very stony-----	4s	4.0	100	15	75	34
Ossmer-----	2w	3.8	95	15	70	32
623A:						
Capitola, very stony----	7w	---	---	---	---	---
624A:						
Ossmer-----	2w	3.8	95	15	70	32
632B:						
Aftad-----	2e	3.8	95	15	70	32
637B:						
Newood, very stony-----	4s	3.6	90	14	70	30
637C:						
Newood, very stony-----	6s	3.4	85	14	65	28
642B:						
Pesabic, very stony-----	4s	3.2	80	13	65	26
Capitola, very stony----	7w	---	---	---	---	---
Newood, very stony-----	4s	3.6	90	14	70	30
648B:						
Sconsin-----	2e	4.0	100	15	75	34
683A:						
Tipler-----	2s	3.8	95	15	70	32

Table 6a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
737D: Santiago, very stony----	7s	3.8	95	15	70	32
748A: Brander-----	2s	4.2	105	16	75	36
755A: Moppet-----	3w	3.6	90	14	70	30
Fordum-----	6w	---	---	---	---	---
757B: Magnor, very stony-----	4s	---	---	---	---	---
Freeon, very stony-----	4s	---	---	---	---	---
Magnor-----	2w	4.0	100	15	75	34
Freeon-----	2e	4.2	105	16	75	36
766A: Moppet-----	3w	3.6	90	14	70	30
822A: Comstock-----	2w	4.2	105	16	75	36
Magnor, very stony-----	4s	4.0	100	15	75	34
Ossmer-----	2w	3.8	95	15	70	32
837E: Newot, very stony-----	7s	---	---	---	---	---
848A: Ribriver-----	2s	4.4	110	16	75	38
863B: Crystal Lake-----	2e	4.4	110	16	75	38
Freeon, very stony-----	4s	4.2	105	16	75	36
Sconsin-----	2e	4.0	100	15	75	34
923A: Capitola, very stony----	7w	---	---	---	---	---
Cebana, very stony-----	7w	---	---	---	---	---
956B: Magnor, very stony-----	4s	4.0	100	15	75	34
957B: Freeon, very stony-----	4s	4.2	105	16	75	36
957C: Freeon, very stony-----	6s	4.0	100	15	75	34
2015: Pits-----	8s	---	---	---	---	---
3011A: Barronett-----	6w	---	---	---	---	---

Table 6a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
3456A:						
Magnor, very stony-----	4s	---	---	---	---	---
Magnor-----	2w	4.0	100	15	75	34
3525C:						
Newood, very stony-----	6s	3.4	85	14	65	28
Padwood-----	3e	3.6	90	14	70	30
Padus-----	3e	3.6	90	14	70	30
3546C:						
Newood, very stony-----	6s	3.4	85	14	65	28
Pence, very stony-----	6s	2.4	60	11	55	18
3556C:						
Newood, very stony-----	6s	3.4	85	14	65	28
Magnor, very stony-----	4s	3.8	95	15	70	32
Cathro-----	6w	---	---	---	---	---
3561A:						
Pesabic, very stony-----	4s	3.2	80	13	65	26
Worwood-----	2w	3.6	90	14	70	30
Worcester-----	2w	3.2	80	13	65	26
3569C:						
Newood, very stony-----	6s	3.4	85	14	65	28
Pesabic, very stony-----	4s	3.0	75	13	60	24
Cathro-----	6w	---	---	---	---	---
3666B:						
Pesabic, very stony-----	4s	3.2	80	13	65	26
3863C:						
Crystal Lake-----	3e	4.2	105	16	75	36
Freeon, very stony-----	6s	4.0	100	15	75	34
Antigo-----	3e	3.6	90	14	70	30
9052A:						
Cathro-----	6w	---	---	---	---	---
Capitola, very stony----	7w	---	---	---	---	---
Lupton-----	6w	---	---	---	---	---
9055A:						
Loxley-----	7w	---	---	---	---	---
9060D:						
Pelissier-----	7s	---	---	---	---	---
9071B:						
Freeon, very stony-----	6s	4.0	100	15	75	34

Table 6a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
9077C: Freeon, very stony-----	6s	3.8	95	15	70	32
9078A: Freeon, very stony-----	4s	4.2	105	16	75	36
Magnor, very stony-----	4s	4.0	100	15	75	34
Ossmer-----	2w	3.8	95	15	70	32
9081C: Newot, very stony-----	7s	3.2	80	13	65	26
9082B: Newood, very stony-----	6s	3.4	85	14	65	28
9083A: Crystal Lake-----	2e	4.4	110	16	75	38
9083B: Crystal Lake-----	3e	4.2	105	16	75	36
9086A: Freeon, very stony-----	4s	4.2	105	16	75	36
9087C: Crystal Lake-----	4e	4.0	100	15	75	34
Freeon, very stony-----	6s	3.8	95	15	70	32
Newot, very stony-----	6s	3.4	85	14	65	28
9088A: Newood, very stony-----	4s	3.6	90	14	70	30
Capitola, very stony----	7w	---	---	---	---	---
9089B: Newood, very stony-----	6s	3.6	90	14	70	30
Lupton-----	6w	---	---	---	---	---
9090C: Newood, very stony-----	6s	3.4	85	14	65	28
Newot, very stony-----	7s	3.0	75	13	60	24
Lupton-----	6w	---	---	---	---	---
9092D: Newot, very stony-----	7s	---	---	---	---	---
9093C: Pence-----	7e	2.2	55	11	50	18
Padus-----	6e	3.4	85	14	65	28
9096C: Newot, very stony-----	7s	---	---	---	---	---
Pesabic, very stony-----	4s	3.0	75	13	60	24
Lupton-----	6w	---	---	---	---	---

Table 6a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Oats	Soybeans
		Tons	Bu	Tons	Bu	Bu
9097B: Newood, very stony-----	6s	3.4	85	14	65	28
Padus, very stony-----	6s	3.6	90	14	70	30
9098A: Oesterle-----	2w	3.6	90	14	70	30
9099B: Antigo-----	3e	3.6	90	14	70	30
9197C: Pelissier-----	7s	---	---	---	---	---
M-W. Miscellaneous water						
W. Water						

Table 6b.--Land Capability and Yields per Acre of Crops

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. 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-	Orchard-	Orchard-	Red clover	Timothy-
		white clover	grass-alsike	grass-red clover	hay	alsike
		Tons	Tons	Tons	Tons	Tons
22A: Comstock-----	2w	2.8	3.6	3.8	3.2	3.4
24A: Poskin-----	2w	2.6	3.4	3.6	3.0	3.2
43B: Antigo-----	2e	2.4	3.2	3.4	2.8	3.0
43C: Antigo-----	3e	2.2	3.0	3.2	2.6	2.8
43D: Antigo-----	6e	2.0	2.8	3.0	2.4	2.6
48B: Brill-----	2e	2.6	3.4	3.6	3.0	3.2
57B: Spencer-----	2e	3.0	3.8	4.0	3.4	3.6
59A: Almena-----	2w	2.8	3.6	3.8	3.2	3.4
63B: Crystal Lake-----	2e	3.0	3.8	4.0	3.4	3.6
63C: Crystal Lake-----	3e	2.8	3.6	3.8	3.2	3.4
63D: Crystal Lake-----	4e	2.6	3.4	3.6	3.0	3.2
63E: Crystal Lake-----	6e	2.4	3.2	3.4	2.8	3.0
77A: Auburndale-----	6w	1.4	---	---	---	---
182B: Padus-----	2e	2.4	3.2	3.4	2.8	3.0
182C: Padus-----	3e	2.2	3.0	3.2	2.6	2.8
182D: Padus-----	6e	2.0	2.8	3.0	2.4	2.6
192A: Worcester-----	2w	1.8	2.6	2.8	2.2	2.4
193A: Minocqua-----	6w	1.0	---	---	---	---
215B: Pence-----	3s	1.2	2.0	2.2	1.6	1.8

Table 6b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Bluegrass-	Orchard-	Orchard-	Red clover	Timothy-
		white clover	grass-alsike	grass-red clover	hay	alsike
		Tons	Tons	Tons	Tons	Tons
215C: Pence-----	4e	1.0	1.8	2.0	1.4	1.6
215D: Pence-----	6e	1.0	1.6	1.8	1.4	1.4
308B: Blackriver-----	2e	3.0	3.8	4.0	3.4	3.6
315A: Rib-----	6w	1.2	---	---	---	---
324A: Maplehurst-----	2w	2.8	3.6	3.8	3.2	3.4
337A: Plover-----	2w	2.2	3.0	3.2	2.6	2.8
345B: Freeon, very stony-----	4s	2.8	3.6	3.8	3.2	3.4
Sconsin-----	2e	2.6	3.4	3.6	3.0	3.2
346E: Newot, very stony-----	7s	1.0	---	---	---	---
Pence, very stony-----	7s	1.0	---	---	---	---
355B: Loyal-----	2e	3.0	3.8	4.0	3.4	3.6
355C: Loyal-----	3e	2.8	3.6	3.8	3.2	3.4
356A: Withee-----	2w	2.8	3.6	3.8	3.2	3.4
357A: Marshfield-----	6w	1.4	---	---	---	---
408A: Lupton-----	6w	---	---	---	---	---
Cathro-----	6w	---	---	---	---	---
414A: Loxley-----	7w	---	---	---	---	---
Beseman-----	7w	---	---	---	---	---
457B: Freeon, very stony-----	4s	---	---	---	---	---
Freeon-----	2e	2.8	3.6	3.8	3.2	3.4
457C: Freeon, very stony-----	6s	---	---	---	---	---
Freeon-----	3e	2.6	3.4	3.6	3.0	3.2
515A: Manitowish-----	3s	1.0	1.8	2.0	1.4	1.6

Table 6b.--Land Capability and Yields per Acre of Crops--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
525B:						
Newood, very stony-----	4s	2.2	3.0	3.2	2.6	2.8
Padwood-----	2e	2.4	3.2	3.4	2.8	3.0
Tipler-----	2s	2.4	3.2	3.4	2.8	3.0
527B:						
Padwood-----	2e	2.4	3.2	3.4	2.8	3.0
537D:						
Newot, very stony-----	7s	1.6	2.4	2.6	2.0	2.2
Newood, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
Cathro-----	6w	---	---	---	---	---
545C:						
Freeon, very stony-----	6s	2.6	3.4	3.6	3.0	3.2
Antigo-----	3e	2.2	3.0	3.2	2.6	2.8
555A:						
Fordum-----	6w	1.0	---	---	---	---
560A:						
Worwood-----	2w	2.2	3.0	3.2	2.6	2.8
571E:						
Pelissier-----	7s	1.0	---	---	---	---
612A:						
Magnor, very stony-----	4s	2.6	3.4	3.6	3.0	3.2
Ossmer-----	2w	2.4	3.2	3.4	2.8	3.0
623A:						
Capitola, very stony----	7w	1.2	---	---	---	---
624A:						
Ossmer-----	2w	2.4	3.2	3.4	2.8	3.0
632B:						
Aftad-----	2e	2.4	3.2	3.4	2.8	3.0
637B:						
Newood, very stony-----	4s	2.2	3.0	3.2	2.6	2.8
637C:						
Newood, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
642B:						
Pesabic, very stony-----	4s	1.8	2.6	2.8	2.2	2.4
Capitola, very stony----	7w	1.2	---	---	---	---
Newood, very stony-----	4s	2.2	3.0	3.2	2.6	2.8
648B:						
Sconsin-----	2e	2.6	3.4	3.6	3.0	3.2

Table 6b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Bluegrass-	Orchard-	Orchard-	Red clover	Timothy-
		white clover	grass-alsike	grass-red clover	hay	alsike
		Tons	Tons	Tons	Tons	Tons
683A: Tipler-----	2s	2.4	3.2	3.4	2.8	3.0
737D: Santiago, very stony----	7s	2.4	3.2	3.4	2.8	3.0
748A: Brander-----	2s	2.8	3.6	3.8	3.2	3.4
755A: Moppet-----	3w	2.2	3.0	3.2	2.6	2.8
Fordum-----	6w	1.0	---	---	---	---
757B: Magnor, very stony-----	4s	---	---	---	---	---
Freeon, very stony-----	4s	---	---	---	---	---
Magnor-----	2w	2.6	3.4	3.6	3.0	3.2
Freeon-----	2e	2.8	3.6	3.8	3.2	3.4
766A: Moppet-----	3w	2.2	3.0	3.2	2.6	2.8
822A: Comstock-----	2w	2.8	3.6	3.8	3.2	3.4
Magnor, very stony-----	4s	2.6	3.4	3.6	3.0	3.2
Ossmer-----	2w	2.4	3.2	3.4	2.8	3.0
837E: Newot, very stony-----	7s	1.0	---	---	---	---
848A: Ribriver-----	2s	3.0	3.8	4.0	3.4	3.6
863B: Crystal Lake-----	2e	3.0	3.8	4.0	3.4	3.6
Freeon, very stony-----	4s	2.8	3.6	3.8	3.2	3.4
Sconsin-----	2e	2.6	3.4	3.6	3.0	3.2
923A: Capitola, very stony----	7w	1.2	---	---	---	---
Cebana, very stony-----	7w	1.4	---	---	---	---
956B: Magnor, very stony-----	4s	2.6	3.4	3.6	3.0	3.2
957B: Freeon, very stony-----	4s	2.8	3.6	3.8	3.2	3.4
957C: Freeon, very stony-----	6s	2.6	3.4	3.6	3.0	3.2

Table 6b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Bluegrass-	Orchard-	Orchard-	Red clover	Timothy-
		white clover	grass-alsike	grass-red clover	hay	alsike
		Tons	Tons	Tons	Tons	Tons
2015:						
Pits-----	8s	---	---	---	---	---
3011A:						
Barronett-----	6w	1.4	---	---	---	---
3456A:						
Magnor, very stony-----	4s	---	---	---	---	---
Magnor-----	2w	2.6	3.4	3.6	3.0	3.2
3525C:						
Newood, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
Padwood-----	3e	2.2	3.0	3.2	2.6	2.8
Padus-----	3e	2.2	3.0	3.2	2.6	2.8
3546C:						
Newood, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
Pence, very stony-----	6s	1.0	1.8	2.0	1.4	1.6
3556C:						
Newood, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
Magnor, very stony-----	4s	2.4	3.2	3.4	2.8	3.0
Cathro-----	6w	---	---	---	---	---
3561A:						
Pesabic, very stony-----	4s	1.8	2.6	2.8	2.2	2.4
Worwood-----	2w	2.2	3.0	3.2	2.6	2.8
Worcester-----	2w	1.8	2.6	2.8	2.2	2.4
3569C:						
Newood, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
Pesabic, very stony-----	4s	1.6	2.4	2.6	2.0	2.2
Cathro-----	6w	---	---	---	---	---
3666B:						
Pesabic, very stony-----	4s	1.8	2.6	2.8	2.2	2.4
3863C:						
Crystal Lake-----	3e	2.8	3.6	3.8	3.2	3.4
Freeon, very stony-----	6s	2.6	3.4	3.6	3.0	3.2
Antigo-----	3e	2.2	3.0	3.2	2.6	2.8
9052A:						
Cathro-----	6w	---	---	---	---	---
Capitola, very stony----	7w	1.2	---	---	---	---
Lupton-----	6w	---	---	---	---	---

Table 6b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Bluegrass-	Orchard-	Orchard-	Red clover	Timothy-
		white clover	grass-alsike	grass-red clover	hay	alsike
		Tons	Tons	Tons	Tons	Tons
9055A: Loxley-----	7w	---	---	---	---	---
9060D: Pelissier-----	7s	1.0	---	---	---	---
9071B: Freeon, very stony-----	6s	2.6	3.4	3.6	3.0	3.2
9077C: Freeon, very stony-----	6s	2.4	3.2	3.4	2.8	3.0
9078A: Freeon, very stony-----	4s	2.8	3.6	3.8	3.2	3.4
Magnor, very stony-----	4s	2.6	3.4	3.6	3.0	3.2
Ossmer-----	2w	2.4	3.2	3.4	2.8	3.0
9081C: Newot, very stony-----	7s	1.8	2.6	2.8	2.2	2.4
9082B: Newood, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
9083A: Crystal Lake-----	2e	3.0	3.8	4.0	3.4	3.6
9083B: Crystal Lake-----	3e	2.8	3.6	3.8	3.2	3.4
9086A: Freeon, very stony-----	4s	2.8	3.6	3.8	3.2	3.4
9087C: Crystal Lake-----	4e	2.6	3.4	3.6	3.0	3.2
Freeon, very stony-----	6s	2.4	3.2	3.4	2.8	3.0
Newot, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
9088A: Newood, very stony-----	4s	2.2	3.0	3.2	2.6	2.8
Capitola, very stony----	7w	1.2	---	---	---	---
9089B: Newood, very stony-----	6s	2.2	3.0	3.2	2.6	2.8
Lupton-----	6w	---	---	---	---	---
9090C: Newood, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
Newot, very stony-----	7s	1.8	2.6	2.8	2.2	2.4
Lupton-----	6w	---	---	---	---	---
9092D: Newot, very stony-----	7s	1.0	---	---	---	---

Table 6b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Bluegrass-	Orchard-	Orchard-	Red clover	Timothy-
		white clover	grass-alsike	grass-red clover	hay	alsike
		Tons	Tons	Tons	Tons	Tons
9093C:						
Pence-----	7e	1.0	1.6	1.8	1.2	1.4
Padus-----	6e	2.0	2.8	3.0	2.4	2.6
9096C:						
Newot, very stony-----	7s	1.0	---	---	---	---
Pesabic, very stony-----	4s	1.6	2.4	2.6	2.0	2.2
Lupton-----	6w	---	---	---	---	---
9097B:						
Newood, very stony-----	6s	2.0	2.8	3.0	2.4	2.6
Padus, very stony-----	6s	2.2	3.0	3.2	2.6	2.8
9098A:						
Oesterle-----	2w	2.2	3.0	3.2	2.6	2.8
9099B:						
Antigo-----	3e	2.2	3.0	3.2	2.6	2.8
9197C:						
Pelissier-----	7s	1.0	---	---	---	---
M-W. Miscellaneous water						
W. Water						

Table 7.--Prime Farmland

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name)

Map symbol	Soil name
22A	Comstock silt loam, 0 to 3 percent slopes (where drained)
24A	Poskin silt loam, 0 to 3 percent slopes (where drained)
43B	Antigo silt loam, 1 to 6 percent slopes
48B	Brill silt loam, 1 to 6 percent slopes
57B	Spencer silt loam, 1 to 6 percent slopes
59A	Almena silt loam, 0 to 3 percent slopes (where drained)
63B	Crystal Lake silt loam, 2 to 6 percent slopes
77A	Auburndale silt loam, 0 to 2 percent slopes (where drained)
182B	Padus sandy loam, 0 to 6 percent slopes
192A	Worcester sandy loam, 0 to 3 percent slopes (where drained)
193A	Minocqua muck, 0 to 2 percent slopes (where drained)
308B	Blackriver silt loam, 1 to 6 percent slopes
315A	Rib silt loam, 0 to 2 percent slopes (where drained)
324A	Maplehurst silt loam, 0 to 3 percent slopes (where drained)
337A	Plover fine sandy loam, 0 to 3 percent slopes (where drained)
345B	Freeon, very stony-Sconsin complex, 2 to 6 percent slopes
355B	Loyal silt loam, 1 to 6 percent slopes
356A	Withee silt loam, 0 to 3 percent slopes (where drained)
357A	Marshfield silt loam, 0 to 2 percent slopes (where drained)
457B	Freeon, very stony-Freeon complex, ground moraine, 1 to 6 percent slopes
525B	Newood, very stony-Padwood-Tipler complex, 2 to 6 percent slopes
527B	Padwood sandy loam, 0 to 6 percent slopes
560A	Worwood sandy loam, 0 to 3 percent slopes (where drained)
612A	Magnor, very stony-Ossmer complex, 0 to 3 percent slopes (where drained)
623A	Capitola muck, 0 to 2 percent slopes, very stony (where drained)
624A	Ossmer silt loam, 0 to 3 percent slopes (where drained)
632B	Aftad fine sandy loam, 2 to 6 percent slopes
637B	Newood sandy loam, 2 to 6 percent slopes, very stony
642B	Pesabic-Capitola-Newood complex, 0 to 6 percent slopes, very stony (where drained)
648B	Sconsin silt loam, 1 to 6 percent slopes
683A	Tipler sandy loam, 0 to 3 percent slopes
748A	Brander silt loam, 0 to 3 percent slopes
757B	Magnor-Freeon complex, 0 to 6 percent slopes, very stony (where drained)
766A	Moppet fine sandy loam, 0 to 3 percent slopes
822A	Comstock-Magnor, very stony-Ossmer complex, 0 to 3 percent slopes (where drained)
848A	Ribriver silt loam, 0 to 3 percent slopes
863B	Crystal Lake-Freeon, very stony-Sconsin complex, 2 to 6 percent slopes
923A	Capitola-Cebana complex, 0 to 2 percent slopes, very stony (where drained)
956B	Magnor silt loam, end moraine, 0 to 4 percent slopes, very stony (where drained)
957B	Freeon silt loam, end moraine, 2 to 6 percent slopes, very stony
3011A	Barronett silt loam, 0 to 2 percent slopes (where drained)
3456A	Magnor, very stony-Magnor complex, ground moraine, 0 to 3 percent slopes (where drained)
3561A	Pesabic, very stony-Worwood-Worcester complex, 0 to 3 percent slopes (where drained)
3666B	Pesabic sandy loam, 0 to 4 percent slopes, very stony (where drained)
9078A	Freeon, very stony-Magnor, very stony-Ossmer complex, 0 to 5 percent slopes (where drained)
9083A	Crystal Lake silt loam, 0 to 5 percent slopes
9086A	Freeon silt loam, 0 to 5 percent slopes, very stony
9088A	Newood-Capitola complex, 0 to 5 percent slopes, very stony (where drained)
9098A	Oesterle loam, 0 to 3 percent slopes (where drained)

Table 8.--Windbreaks and Environmental Plantings

(Absence of an entry indicates that trees generally do not grow to the given height)

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
22A: Comstock-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
24A: Poskin-----	---	American cranberrybush, common lilac, silky dogwood, common ninebark, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, silver maple, white ash	---
43B: Antigo-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
43C: Antigo-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
43D: Antigo-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
48B: Brill-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
57B: Spencer-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
59A: Almena-----	---	American cranberrybush, silky dogwood, common lilac, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
63B: Crystal Lake-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
63C: Crystal Lake-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
63D: Crystal Lake-----	---	Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
63E: Crystal Lake-----	---	Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
77A. Auburndale					
182B: Padus-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
182C: Padus-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
182D: Padus-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
192A: Worcester-----	---	American cranberrybush, common lilac, silky dogwood, common ninebark, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, silver maple, white ash	---
193A. Minocqua					
215B: Pence-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
215C: Pence-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
215D: Pence-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
308B: Blackriver-----	---	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
315A. Rib					
324A: Maplehurst-----	---	American cranberrybush, common lilac, nannyberry, northern whitecedar, redosier dogwood, silky dogwood	White spruce, Norway spruce	Eastern white pine, red maple, red pine, white ash	---
337A: Plover-----	---	American cranberrybush, common lilac, nannyberry, northern whitecedar, redosier dogwood, silky dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
345B: Freeon, very stony.					
Sconsin-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
346E: Newot, very stony.					
Pence, very stony-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
355B: Loyal-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
355C: Loyal-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
356A: Withee-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
357A. Marshfield					
408A: Lupton.					
Cathro.					
414A: Loxley.					
Beseman.					
457B: Freeon, very stony.					
Freeon-----	---	American cranberrybush, Amur maple, common lilac, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
457C: Freeon, very stony.					
Freeon-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
515A: Manitowish-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
525B: Newood, very stony.					
Padwood-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
Tipler-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
527B: Padwood-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
537D: Newot, very stony.					
Newood, very stony.					
Cathro.					

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
545C: Freeon, very stony.					
Antigo-----	Manyflower cotoneaster	American cranberrybush, Amur maple, Siberian peashrub, common lilac, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
555A. Fordum					
560A: Worwood-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
571E. Pelissier					
612A: Magnor, very stony.					
Ossmer-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
623A. Capitola, very stony					

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
624A: Ossmer-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
632B: Aftad-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
637B, 637C. Newood, very stony					
642B: Pesabic, very stony. Capitola, very stony. Newood, very stony.					
648B: Sconsin-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
683A: Tipler-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
737D. Santiago, very stony					
748A: Brander-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
755A: Moppet-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
Fordum.					
757B: Magnor, very stony.					
Freeon, very stony.					
Magnor-----	---	American cranberrybush, common lilac, gray dogwood, northern whitecedar, redosier dogwood, silky dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
Freeon-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
766A: Moppet-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
822A: Comstock-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
Magnor, very stony.					
Ossmer-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
837E. Newot, very stony					
848A: Ribriver-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Norway spruce-----	Eastern white pine, jack pine, red pine	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
863B: Crystal Lake-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
Freeon, very stony.					
Sconsin-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
923A: Capitola, very stony.					
Cebana, very stony.					
956B. Magnor, very stony					
957B, 957C. Freeon, very stony					
2015. Pits					
3011A. Barronett					
3456A: Magnor, very stony.					

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
3456A: Magnor-----	---	American cranberrybush, common lilac, nannyberry, northern whitecedar, redosier dogwood, silky dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
3525C: Newood, very stony.					
Padwood-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
Padus-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
3546C: Newood, very stony.					
Pence, very stony-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
3556C: Newood, very stony.					
Magnor, very stony.					

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
3556C: Cathro.					
3561A: Pesabic, very stony.					
Worwood-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
Worcester-----	---	American cranberrybush, common lilac, silky dogwood, common ninebark, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, silver maple, white ash	---
3569C: Newood, very stony.					
Pesabic, very stony.					
Cathro.					
3666B. Pesabic, very stony					
3863C: Crystal Lake-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
Freeon, very stony.					

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
3863C: Antigo-----	Manyflower cotoneaster	American cranberrybush, Amur maple, Siberian peashrub, common lilac, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
9052A: Cathro. Capitola, very stony. Lupton. 9055A. Loxley 9060D. Pelissier 9071B, 9077C. Freeon, very stony 9078A: Freeon, very stony. Magnor, very stony.					
Ossmer-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
9081C. Newot, very stony 9082B. Newood, very stony					

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
9083A: Crystal Lake-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
9083B: Crystal Lake-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
9086A. Freeon, very stony					
9087C: Crystal Lake-----	---	American cranberrybush, Amur maple, common lilac, gray dogwood, northern whitecedar	Black Hills spruce, Norway spruce, white spruce	Eastern white pine, red maple, red pine, white ash	---
Freeon, very stony.					
Newot, very stony.					
9088A: Newood, very stony.					
Capitola, very stony.					
9089B: Newood, very stony.					
Lupton.					
9090C: Newood, very stony.					
Newot, very stony.					
Lupton.					

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
9092D. Newot, very stony					
9093C: Pence-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
Padus-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
9096C: Newot, very stony. Pesabic, very stony. Lupton.					
9097B: Newood, very stony. Padus, very stony-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---

Table 8.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
9098A: Oesterle-----	---	American cranberrybush, common lilac, silky dogwood, nannyberry, northern whitecedar, redosier dogwood	White spruce-----	Eastern white pine, red maple, red pine, silver maple, white ash	---
9099B: Antigo-----	Manyflower cotoneaster	American cranberrybush, Amur maple, common lilac, Siberian peashrub, gray dogwood, northern whitecedar, silky dogwood	Norway spruce-----	Eastern white pine, jack pine, red pine	---
9197C. Pelissier					
M-W. Miscellaneous water					
W. Water					

Table 9.--Conservation Tree/Shrub Suitability Groups

(Absence of an entry indicates that no conservation tree/shrub suitability group is assigned)

Map symbol and soil name	Conservation tree/shrub group
22A: Comstock-----	10
24A: Poskin-----	10
43B: Antigo-----	6GA
43C: Antigo-----	6GA
43D: Antigo-----	6GA
48B: Brill-----	2A
57B: Spencer-----	2A
59A: Almena-----	10
63B: Crystal Lake-----	2A
63C: Crystal Lake-----	2A
63D: Crystal Lake-----	2A
63E: Crystal Lake-----	2A
77A: Auburndale-----	10
182B: Padus-----	6GA
182C: Padus-----	6GA
182D: Padus-----	6GA
192A: Worcester-----	10
193A: Minocqua-----	10
215B: Pence-----	6GA

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

Map symbol and soil name	Conservation tree/shrub group
215C: Pence-----	6GA
215D: Pence-----	6GA
308B: Blackriver-----	2A
315A: Rib-----	10
324A: Maplehurst-----	10
337A: Plover-----	10
345B: Freeon, very stony----	2A
Sconsin-----	2A
346E: Newot, very stony----	6DA
Pence, very stony----	6GA
355B: Loyal-----	2A
355C: Loyal-----	2A
356A: Withee-----	10
357A: Marshfield-----	10
408A: Lupton-----	10
Cathro-----	10
414A: Loxley-----	10
Beseman-----	10
457B: Freeon, very stony----	2A
Freeon-----	2A
457C: Freeon, very stony----	2A
Freeon-----	2A
515A: Manitowish-----	2A

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

Map symbol and soil name	Conservation tree/shrub group
525B: Newood, very stony----	2A
Padwood-----	2A
Tipler-----	2A
527B: Padwood-----	2A
537D: Newot, very stony----	6DA
Newood, very stony----	2A
Cathro-----	10
545C: Freeon, very stony----	2A
Antigo-----	6GA
555A: Fordum-----	10
560A: Worwood-----	10
571E: Pelissier-----	6A
612A: Magnor, very stony----	10
Ossmer-----	10
623A: Capitola, very stony--	10
624A: Ossmer-----	10
632B: Aftad-----	2A
637B: Newood, very stony----	2A
637C: Newood, very stony----	2A
642B: Pesabic, very stony--	10
Capitola, very stony--	10
Newood, very stony----	2A
648B: Sconsin-----	2A
683A: Tipler-----	2A

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

Map symbol and soil name	Conservation tree/shrub group
737D: Santiago, very stony--	6DA
748A: Brander-----	2A
755A: Moppet-----	2A
Fordum-----	10
757B: Magnor, very stony----	10
Freeon, very stony----	2A
Magnor-----	10
Freeon-----	2A
766A: Moppet-----	2A
822A: Comstock-----	10
Magnor, very stony----	10
Ossmer-----	10
837E: Newot, very stony-----	6DA
848A: Ribriver-----	2A
863B: Crystal Lake-----	2A
Freeon, very stony----	2A
Sconsin-----	2A
923A: Capitola, very stony--	10
Cebana, very stony----	10
956B: Magnor, very stony----	10
957B: Freeon, very stony----	2A
957C: Freeon, very stony----	2A
2015. Pits	
3011A: Barronett-----	10

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

Map symbol and soil name	Conservation tree/shrub group
3456A: Magnor, very stony----	10
Magnor-----	10
3525C: Newood, very stony----	2A
Padwood-----	2A
Padus-----	6GA
3546C: Newood, very stony----	2A
Pence, very stony-----	6GA
3556C: Newood, very stony----	2A
Magnor, very stony----	10
Cathro-----	10
3561A: Pesabic, very stony---	10
Worwood-----	10
Worcester-----	10
3569C: Newood, very stony----	2A
Pesabic, very stony---	10
Cathro-----	10
3666B: Pesabic, very stony---	10
3863C: Crystal Lake-----	2A
Freeon, very stony----	2A
Antigo-----	6A
9052A: Cathro-----	10
Capitola, very stony--	10
Lupton-----	10
9055A: Loxley-----	10
9060D: Pelissier-----	6A
9071B: Freeon, very stony----	2A

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

Map symbol and soil name	Conservation tree/shrub group
9077C: Freeon, very stony----	2A
9078A: Freeon, very stony----	2A
Magnor, very stony----	10
Ossmer-----	10
9081C: Newot, very stony----	6DA
9082B: Newood, very stony----	2A
9083A: Crystal Lake-----	2A
9083B: Crystal Lake-----	2A
9086A: Freeon, very stony----	2A
9087C: Crystal Lake-----	2A
Freeon, very stony----	2A
Newot, very stony----	6DA
9088A: Newood, very stony----	2A
Capitola, very stony--	10
9089B: Newood, very stony----	2A
Lupton-----	10
9090C: Newood, very stony----	2A
Newot, very stony----	6DA
Lupton-----	10
9092D: Newot, very stony----	6DA
9093C: Pence-----	6GA
Padus-----	6GA
9096C: Newot, very stony----	6DA
Pesabic, very stony--	10
Lupton-----	10

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

Map symbol and soil name	Conservation tree/shrub group
9097B: Newood, very stony----	2A
Padus, very stony-----	6GA
9098A: Oesterle-----	10
9099B: Antigo-----	6GA
9197C: Pelissier-----	6A
M-W. Miscellaneous water	
W. Water	

Table 10.--Forest Land Harvest Equipment Considerations

(Only the soils that are commonly used as forest land are listed. See text for a description of the considerations listed in this table)

Map symbol and soil name	Forest land harvest equipment considerations
22A: Comstock-----	Wetness Susceptible to rutting and wheel slippage
24A: Poskin-----	Wetness Susceptible to rutting and wheel slippage
43B: Antigo-----	No major considerations
43C: Antigo-----	No major considerations
43D: Antigo-----	Slope
48B: Brill-----	Wetness Susceptible to rutting and wheel slippage
57B: Spencer-----	Wetness Susceptible to rutting and wheel slippage
59A: Almena-----	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
63D: Crystal Lake-----	Slope Wetness Susceptible to rutting and wheel slippage
63E: Crystal Lake-----	Slope Wetness Susceptible to rutting and wheel slippage
77A: Auburndale-----	Wetness Susceptible to rutting and wheel slippage
182B: Padus-----	No major considerations
182C: Padus-----	No major considerations
182D: Padus-----	Slope

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

Map symbol and soil name	Forest land harvest equipment considerations
192A: Worcester-----	Wetness
193A: Minocqua-----	Wetness Susceptible to rutting and wheel slippage
215B: Pence-----	No major considerations
215C: Pence-----	No major considerations
215D: Pence-----	Slope
308B: Blackriver-----	Wetness Susceptible to rutting and wheel slippage
315A: Rib-----	Wetness Susceptible to rutting and wheel slippage
324A: Maplehurst-----	Wetness Susceptible to rutting and wheel slippage
337A: Plover-----	Wetness
345B: Freeon, very stony-----	Wetness
Sconsin-----	Wetness
346E: Newot, very stony-----	Slope
Pence, very stony-----	Slope
355B: Loyal-----	Wetness Susceptible to rutting and wheel slippage
355C: Loyal-----	Wetness Susceptible to rutting and wheel slippage
356A: Withee-----	Wetness Susceptible to rutting and wheel slippage
357A: Marshfield-----	Wetness Susceptible to rutting and wheel slippage
408A: Lupton-----	Wetness Susceptible to rutting and wheel slippage
Cathro-----	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
414A: Loxley-----	Wetness Susceptible to rutting and wheel slippage
Beseman-----	Wetness Susceptible to rutting and wheel slippage
457B: Freeon, very stony-----	Wetness
Freeon-----	Wetness
457C: Freeon, very stony-----	Wetness
Freeon-----	Wetness
515A: Manitowish-----	No major considerations
525B: Newood, very stony-----	Wetness
Padwood-----	Wetness
Tipler-----	No major considerations
527B: Padwood-----	Wetness
537D: Newot, very stony-----	Slope
Newood, very stony-----	Wetness
Cathro-----	Wetness Susceptible to rutting and wheel slippage
545C: Freeon, very stony-----	Wetness
Antigo-----	No major considerations
555A: Fordum-----	Flooding Wetness Susceptible to rutting and wheel slippage
560A: Worwood-----	Wetness
571E: Pelissier-----	Slope
612A: Magnor, very stony-----	Wetness
Ossmer-----	Wetness
623A: Capitola, very stony-----	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
624A: Ossmer-----	Wetness
632B: Aftad-----	Wetness
637B: Newood, very stony-----	Wetness
637C: Newood, very stony-----	Wetness
642B: Pesabic, very stony-----	Wetness
Capitola, very stony-----	Wetness Susceptible to rutting and wheel slippage
Newood, very stony-----	Wetness
648B: Sconsin-----	Wetness
683A: Tipler-----	No major considerations
737D: Santiago, very stony-----	Slope
748A: Brander-----	Susceptible to rutting and wheel slippage
755A: Moppet-----	No major considerations
Fordum-----	Flooding Wetness Susceptible to rutting and wheel slippage
757B: Magnor, very stony-----	Wetness
Freeon, very stony-----	Wetness
Magnor-----	Wetness
Freeon-----	Wetness
766A: Moppet-----	No major considerations
822A: Comstock-----	Wetness Susceptible to rutting and wheel slippage
Magnor, very stony-----	Wetness
Ossmer-----	Wetness
837E: Newot, very stony-----	Slope
848A: Ribriver-----	Susceptible to rutting and wheel slippage

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

Map symbol and soil name	Forest land harvest equipment considerations
863B: Crystal Lake-----	Wetness Susceptible to rutting and wheel slippage
Freeon, very stony-----	Wetness
Sconsin-----	Wetness
923A: Capitola, very stony-----	Wetness Susceptible to rutting and wheel slippage
Cebana, very stony-----	Wetness
956B: Magnor, very stony-----	Wetness
957B: Freeon, very stony-----	Wetness
957C: Freeon, very stony-----	Wetness
3011A: Barronett-----	Wetness Susceptible to rutting and wheel slippage
3456A: Magnor, very stony-----	Wetness
Magnor-----	Wetness
3525C: Newood, very stony-----	Wetness
Padwood-----	Wetness
Padus-----	No major considerations
3546C: Newood, very stony-----	Wetness
Pence, very stony-----	No major considerations
3556C: Newood, very stony-----	Wetness
Magnor, very stony-----	Wetness
Cathro-----	Wetness Susceptible to rutting and wheel slippage
3561A: Pesabic, very stony-----	Wetness
Worwood-----	Wetness
Worcester-----	Wetness
3569C: Newood, very stony-----	Wetness
Pesabic, very stony-----	Wetness

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

Map symbol and soil name	Forest land harvest equipment considerations
3569C: Cathro-----	Wetness Susceptible to rutting and wheel slippage
3666B: Pesabic, very stony-----	Wetness
3863C: Crystal Lake-----	Wetness Susceptible to rutting and wheel slippage
Freeon, very stony-----	Wetness
Antigo-----	No major considerations
9052A: Cathro-----	Wetness Susceptible to rutting and wheel slippage
Capitola, very stony-----	Wetness Susceptible to rutting and wheel slippage
Lupton-----	Wetness Susceptible to rutting and wheel slippage
9055A: Loxley-----	Wetness Susceptible to rutting and wheel slippage
9060D: Pelissier-----	Slope
9071B: Freeon, very stony-----	Wetness
9077C: Freeon, very stony-----	Slope Wetness
9078A: Freeon, very stony-----	Wetness
Magnor, very stony-----	Wetness
Ossmer-----	Wetness
9081C: Newot, very stony-----	Slope
9082B: Newood, very stony-----	Wetness
9083A: Crystal Lake-----	Wetness Susceptible to rutting and wheel slippage
9083B: Crystal Lake-----	Wetness Susceptible to rutting and wheel slippage
9086A: Freeon, very stony-----	Wetness

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

Map symbol and soil name	Forest land harvest equipment considerations
9087C:	
Crystal Lake-----	Slope Wetness Susceptible to rutting and wheel slippage
Freeon, very stony-----	Wetness
Newot, very stony-----	Slope
9088A:	
Newood, very stony-----	Wetness
Capitola, very stony-----	Wetness Susceptible to rutting and wheel slippage
9089B:	
Newood, very stony-----	Wetness
Lupton-----	Wetness Susceptible to rutting and wheel slippage
9090C:	
Newood, very stony-----	Wetness
Newot, very stony-----	Slope
Lupton-----	Wetness Susceptible to rutting and wheel slippage
9092D:	
Newot, very stony-----	Slope
9093C:	
Pence-----	Slope
Padus-----	Slope
9096C:	
Newot, very stony-----	Slope
Pesabic, very stony-----	Wetness
Lupton-----	Wetness Susceptible to rutting and wheel slippage
9097B:	
Newood, very stony-----	Wetness
Padus, very stony-----	No major considerations
9098A:	
Oesterle-----	Wetness
9099B:	
Antigo-----	No major considerations
9197C:	
Pelissier-----	Slope

Table 11.--Forest Haul Road Considerations

(Only the soils that are commonly used as forest land are listed. See text for a description of the considerations listed in this table)

Map symbol and soil name	Forest haul road considerations
22A: Comstock-----	Wetness Low bearing strength
24A: Poskin-----	Wetness Low bearing strength
43B: Antigo-----	No major considerations
43C: Antigo-----	Slope
43D: Antigo-----	Slope
48B: Brill-----	Wetness Low bearing strength
57B: Spencer-----	Wetness Low bearing strength
59A: Almena-----	Wetness Low bearing strength
63B: Crystal Lake-----	Wetness Low bearing strength
63C: Crystal Lake-----	Slope Wetness Low bearing strength
63D: Crystal Lake-----	Slope Wetness Low bearing strength
63E: Crystal Lake-----	Slope Wetness Low bearing strength
77A: Auburndale-----	Wetness Low bearing strength
182B: Padus-----	No major considerations
182C: Padus-----	Slope
182D: Padus-----	Slope

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
192A: Worcester-----	Wetness
193A: Minocqua-----	Wetness Low bearing strength
215B: Pence-----	No major considerations
215C: Pence-----	Slope
215D: Pence-----	Slope
308B: Blackriver-----	Wetness Low bearing strength
315A: Rib-----	Wetness Low bearing strength
324A: Maplehurst-----	Wetness Low bearing strength
337A: Plover-----	Wetness
345B: Freeon, very stony----- Sconsin-----	Wetness Wetness
346E: Newot, very stony----- Pence, very stony-----	Slope Slope
355B: Loyal-----	Wetness Low bearing strength
355C: Loyal-----	Slope Wetness Low bearing strength
356A: Withee-----	Wetness Low bearing strength
357A: Marshfield-----	Wetness Low bearing strength
408A: Lupton-----	Wetness Low bearing strength
Cathro-----	Wetness Low bearing strength

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
414A:	
Loxley-----	Wetness Low bearing strength
Beseman-----	Wetness Low bearing strength
457B:	
Freeon, very stony-----	Wetness
Freeon-----	Wetness
457C:	
Freeon, very stony-----	Slope Wetness
Freeon-----	Slope Wetness
515A:	
Manitowish-----	No major considerations
525B:	
Newood, very stony-----	Wetness
Padwood-----	Wetness
Tipler-----	No major considerations
527B:	
Padwood-----	Wetness
537D:	
Newot, very stony-----	Slope
Newood, very stony-----	Slope Wetness
Cathro-----	Wetness Low bearing strength
545C:	
Freeon, very stony-----	Slope Wetness
Antigo-----	Slope
555A:	
Fordum-----	Flooding Wetness Low bearing strength
560A:	
Worwood-----	Wetness
571E:	
Pelissier-----	Slope
612A:	
Magnor, very stony-----	Wetness
Ossmer-----	Wetness

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
623A: Capitola, very stony-----	Wetness Low bearing strength
624A: Ossmer-----	Wetness
632B: Aftad-----	Wetness
637B: Newood, very stony-----	Wetness
637C: Newood, very stony-----	Slope Wetness
642B: Pesabic, very stony-----	Wetness
Capitola, very stony-----	Wetness Low bearing strength
Newood, very stony-----	Wetness
648B: Sconsin-----	Wetness
683A: Tipler-----	No major considerations
737D: Santiago, very stony-----	Slope
748A: Brander-----	Low bearing strength
755A: Moppet-----	No major considerations
Fordum-----	Flooding Wetness Low bearing strength
757B: Magnor, very stony-----	Wetness
Freeon, very stony-----	Wetness
Magnor-----	Wetness
Freeon-----	Wetness
766A: Moppet-----	No major considerations
822A: Comstock-----	Wetness Low bearing strength
Magnor, very stony-----	Wetness
Ossmer-----	Wetness

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
837E: Newot, very stony-----	Slope
848A: Ribriver-----	Low bearing strength
863B: Crystal Lake-----	Wetness Low bearing strength
Freeon, very stony-----	Wetness
Sconsin-----	Wetness
923A: Capitola, very stony-----	Wetness Low bearing strength
Cebana, very stony-----	Wetness
956B: Magnor, very stony-----	Wetness
957B: Freeon, very stony-----	Wetness
957C: Freeon, very stony-----	Slope Wetness
3011A: Barronett-----	Wetness Low bearing strength
3456A: Magnor, very stony-----	Wetness
Magnor-----	Wetness
3525C: Newood, very stony-----	Slope Wetness
Padwood-----	Slope Wetness
Padus-----	Slope
3546C: Newood, very stony-----	Slope Wetness
Pence, very stony-----	Slope
3556C: Newood, very stony-----	Slope Wetness
Magnor, very stony-----	Wetness
Cathro-----	Wetness Low bearing strength

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
3561A: Pesabic, very stony-----	Wetness
Worwood-----	Wetness
Worcester-----	Wetness
3569C: Newood, very stony-----	Slope Wetness
Pesabic, very stony-----	Wetness
Cathro-----	Wetness Low bearing strength
3666B: Pesabic, very stony-----	Wetness
3863C: Crystal Lake-----	Slope Wetness Low bearing strength
Freeon, very stony-----	Slope Wetness
Antigo-----	Slope
9052A: Cathro-----	Wetness Low bearing strength
Capitola, very stony-----	Wetness Low bearing strength
Lupton-----	Wetness Low bearing strength
9055A: Loxley-----	Wetness Low bearing strength
9060D: Pelissier-----	Slope
9071B: Freeon, very stony-----	Slope Wetness
9077C: Freeon, very stony-----	Slope Wetness
9078A: Freeon, very stony-----	Wetness
Magnor, very stony-----	Wetness
Ossmer-----	Wetness
9081C: Newot, very stony-----	Slope

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
9082B: Newood, very stony-----	Slope Wetness
9083A: Crystal Lake-----	Wetness Low bearing strength
9083B: Crystal Lake-----	Slope Wetness Low bearing strength
9086A: Freeon, very stony-----	Wetness
9087C: Crystal Lake-----	Slope Wetness Low bearing strength
Freeon, very stony-----	Slope Wetness
Newot, very stony-----	Slope
9088A: Newood, very stony-----	Wetness
Capitola, very stony-----	Wetness Low bearing strength
9089B: Newood, very stony-----	Slope Wetness
Lupton-----	Wetness Low bearing strength
9090C: Newood, very stony-----	Slope Wetness
Newot, very stony-----	Slope
Lupton-----	Wetness Low bearing strength
9092D: Newot, very stony-----	Slope
9093C: Pence-----	Slope
Padus-----	Slope
9096C: Newot, very stony-----	Slope
Pesabic, very stony-----	Wetness
Lupton-----	Wetness Low bearing strength

Table 11.--Forest Haul Road Considerations--Continued

Map symbol and soil name	Forest haul road considerations
9097B: Newood, very stony-----	Slope Wetness
Padus, very stony-----	Slope
9098A: Oesterle-----	Wetness
9099B: Antigo-----	Slope
9197C: Pelissier-----	Slope

Table 12.--Forest Log Landing Considerations

(Only the soils that are commonly used as forest land are listed. See text for a description of the considerations listed in this table)

Map symbol and soil name	Forest log landing considerations
22A: Comstock-----	Wetness Susceptible to rutting and wheel slippage
24A: Poskin-----	Wetness Susceptible to rutting and wheel slippage
43B: Antigo-----	No major considerations
43C: Antigo-----	Slope
43D: Antigo-----	Slope
48B: Brill-----	Wetness Susceptible to rutting and wheel slippage
57B: Spencer-----	Wetness Susceptible to rutting and wheel slippage
59A: Almena-----	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
63D: Crystal Lake-----	Slope Wetness Susceptible to rutting and wheel slippage
63E: Crystal Lake-----	Slope Wetness Susceptible to rutting and wheel slippage
77A: Auburndale-----	Wetness Susceptible to rutting and wheel slippage
182B: Padus-----	No major considerations
182C: Padus-----	Slope
182D: Padus-----	Slope

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
192A: Worcester-----	Wetness
193A: Minocqua-----	Wetness Susceptible to rutting and wheel slippage
215B: Pence-----	No major considerations
215C: Pence-----	Slope
215D: Pence-----	Slope
308B: Blackriver-----	Wetness Susceptible to rutting and wheel slippage
315A: Rib-----	Wetness Susceptible to rutting and wheel slippage
324A: Maplehurst-----	Wetness Susceptible to rutting and wheel slippage
337A: Plover-----	Wetness
345B: Freeon, very stony-----	Wetness
Sconsin-----	Wetness
346E: Newot, very stony-----	Slope
Pence, very stony-----	Slope
355B: Loyal-----	Wetness Susceptible to rutting and wheel slippage
355C: Loyal-----	Slope Wetness Susceptible to rutting and wheel slippage
356A: Withee-----	Wetness Susceptible to rutting and wheel slippage
357A: Marshfield-----	Wetness Susceptible to rutting and wheel slippage
408A: Lupton-----	Wetness Susceptible to rutting and wheel slippage
Cathro-----	Wetness Susceptible to rutting and wheel slippage

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
414A: Loxley-----	Wetness Susceptible to rutting and wheel slippage
Beseman-----	Wetness Susceptible to rutting and wheel slippage
457B: Freeon, very stony-----	Wetness
Freeon-----	Wetness
457C: Freeon, very stony-----	Slope Wetness
Freeon-----	Slope Wetness
515A: Manitowish-----	No major considerations
525B: Newood, very stony-----	Wetness
Padwood-----	Wetness
Tipler-----	No major considerations
527B: Padwood-----	Wetness
537D: Newot, very stony-----	Slope
Newood, very stony-----	Slope Wetness
Cathro-----	Wetness Susceptible to rutting and wheel slippage
545C: Freeon, very stony-----	Slope Wetness
Antigo-----	Slope
555A: Fordum-----	Flooding Wetness Susceptible to rutting and wheel slippage
560A: Worwood-----	Wetness
571E: Pelissier-----	Slope
612A: Magnor, very stony-----	Wetness
Ossmer-----	Wetness

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
623A: Capitola, very stony-----	Wetness Susceptible to rutting and wheel slippage
624A: Ossmer-----	Wetness
632B: Aftad-----	Wetness
637B: Newood, very stony-----	Wetness
637C: Newood, very stony-----	Slope Wetness
642B: Pesabic, very stony-----	Wetness
Capitola, very stony-----	Wetness Susceptible to rutting and wheel slippage
Newood, very stony-----	Wetness
648B: Sconsin-----	Wetness
683A: Tipler-----	No major considerations
737D: Santiago, very stony-----	Slope
748A: Brander-----	Susceptible to rutting and wheel slippage
755A: Moppet-----	Flooding
Fordum-----	Flooding Wetness Susceptible to rutting and wheel slippage
757B: Magnor, very stony-----	Wetness
Freeon, very stony-----	Wetness
Magnor-----	Wetness
Freeon-----	Wetness
766A: Moppet-----	Flooding
822A: Comstock-----	Wetness Susceptible to rutting and wheel slippage
Magnor, very stony-----	Wetness
Ossmer-----	Wetness

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
837E: Newot, very stony-----	Slope
848A: Ribriver-----	Susceptible to rutting and wheel slippage
863B: Crystal Lake-----	Wetness Susceptible to rutting and wheel slippage
Freeon, very stony-----	Wetness
Sconsin-----	Wetness
923A: Capitola, very stony-----	Wetness Susceptible to rutting and wheel slippage
Cebana, very stony-----	Wetness
956B: Magnor, very stony-----	Wetness
957B: Freeon, very stony-----	Wetness
957C: Freeon, very stony-----	Slope Wetness
3011A: Barronett-----	Wetness Susceptible to rutting and wheel slippage
3456A: Magnor, very stony-----	Wetness
Magnor-----	Wetness
3525C: Newood, very stony-----	Slope Wetness
Padwood-----	Slope Wetness
Padus-----	Slope
3546C: Newood, very stony-----	Slope Wetness
Pence, very stony-----	Slope
3556C: Newood, very stony-----	Slope Wetness
Magnor, very stony-----	Wetness
Cathro-----	Wetness Susceptible to rutting and wheel slippage

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
3561A: Pesabic, very stony-----	Wetness
Worwood-----	Wetness
Worcester-----	Wetness
3569C: Newood, very stony-----	Slope Wetness
Pesabic, very stony-----	Wetness
Cathro-----	Wetness Susceptible to rutting and wheel slippage
3666B: Pesabic, very stony-----	Wetness
3863C: Crystal Lake-----	Slope Wetness Susceptible to rutting and wheel slippage
Freeon, very stony-----	Slope Wetness
Antigo-----	Slope
9052A: Cathro-----	Wetness Susceptible to rutting and wheel slippage
Capitola, very stony-----	Wetness Susceptible to rutting and wheel slippage
Lupton-----	Wetness Susceptible to rutting and wheel slippage
9055A: Loxley-----	Wetness Susceptible to rutting and wheel slippage
9060D: Pelissier-----	Slope
9071B: Freeon, very stony-----	Slope Wetness
9077C: Freeon, very stony-----	Slope Wetness
9078A: Freeon, very stony-----	Wetness
Magnor, very stony-----	Wetness
Ossmer-----	Wetness
9081C: Newot, very stony-----	Slope

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
9082B: Newood, very stony-----	Slope Wetness
9083A: Crystal Lake-----	Wetness Susceptible to rutting and wheel slippage
9083B: Crystal Lake-----	Slope Wetness Susceptible to rutting and wheel slippage
9086A: Freeon, very stony-----	Wetness
9087C: Crystal Lake-----	Slope Wetness Susceptible to rutting and wheel slippage
Freeon, very stony-----	Slope Wetness
Newot, very stony-----	Slope
9088A: Newood, very stony-----	Wetness
Capitola, very stony-----	Wetness Susceptible to rutting and wheel slippage
9089B: Newood, very stony-----	Wetness
Lupton-----	Wetness Susceptible to rutting and wheel slippage
9090C: Newood, very stony-----	Slope Wetness
Newot, very stony-----	Slope
Lupton-----	Wetness Susceptible to rutting and wheel slippage
9092D: Newot, very stony-----	Slope
9093C: Pence-----	Slope
Padus-----	Slope
9096C: Newot, very stony-----	Slope
Pesabic, very stony-----	Wetness
Lupton-----	Wetness Susceptible to rutting and wheel slippage

Table 12.--Forest Log Landing Considerations--Continued

Map symbol and soil name	Forest log landing considerations
9097B: Newood, very stony-----	Slope Wetness
Padus, very stony-----	Slope
9098A: Oesterle-----	Wetness
9099B: Antigo-----	Slope
9197C: Pelissier-----	Slope

Table 13.--Forest Land Site Preparation and Planting Considerations

(Only the soils that are commonly used as forest land are listed. See text for a description of the considerations listed in this table)

Map symbol and soil name	Forest land site preparation and planting considerations
22A: Comstock-----	Wetness Potential poor tilth and compaction
24A: Poskin-----	Wetness Cobbly surface
43B: Antigo-----	Cobbly surface
43C: Antigo-----	Cobbly surface Water erosion
43D: Antigo-----	Slope Cobbly surface Water erosion
48B: Brill-----	Wetness Cobbly surface
57B: Spencer-----	Wetness Cobbly surface
59A: Almena-----	Wetness Cobbly surface
63B: Crystal Lake-----	Wetness Potential poor tilth and compaction
63C: Crystal Lake-----	Wetness Water erosion Potential poor tilth and compaction
63D: Crystal Lake-----	Slope Wetness Water erosion Potential poor tilth and compaction
63E: Crystal Lake-----	Slope Wetness Water erosion Potential poor tilth and compaction
77A: Auburndale-----	Wetness Cobbly surface Potential poor tilth and compaction
182B: Padus-----	Cobbly surface

Table 13.--Forest Land Site Preparation and Planting Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
182C: Padus-----	Cobbly surface Water erosion
182D: Padus-----	Slope Cobbly surface Water erosion
192A: Worcester-----	Wetness Cobbly surface
193A: Minocqua-----	Wetness
215B: Pence-----	Cobbly surface
215C: Pence-----	Cobbly surface Water erosion
215D: Pence-----	Slope Cobbly surface Water erosion
308B: Blackriver-----	Wetness Cobbly surface
315A: Rib-----	Wetness Cobbly surface Potential poor tilth and compaction
324A: Maplehurst-----	Wetness Cobbly surface
337A: Plover-----	Wetness
345B: Freeon, very stony-----	Wetness Surface stones
Sconsin-----	Wetness Cobbly surface
346E: Newot, very stony-----	Slope Surface stones Water erosion
Pence, very stony-----	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
355B: Loyal-----	Wetness Cobbly surface
355C: Loyal-----	Wetness Cobbly surface Water erosion
356A: Withee-----	Wetness Cobbly surface
357A: Marshfield-----	Wetness Cobbly surface Potential poor tilth and compaction
408A: Lupton-----	Wetness
Cathro-----	Wetness
414A: Loxley-----	Wetness
Beseman-----	Wetness
457B: Freeon, very stony-----	Wetness Surface stones
Freeon-----	Wetness Cobbly surface
457C: Freeon, very stony-----	Wetness Surface stones Water erosion
Freeon-----	Wetness Cobbly surface Water erosion
515A: Manitowish-----	Cobbly surface
525B: Newood, very stony-----	Wetness Surface stones Cobbly surface
Padwood-----	Wetness
Tipler-----	Cobbly surface
527B: Padwood-----	Wetness
537D: Newot, very stony-----	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
537D: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
Cathro-----	Wetness
545C: Freeon, very stony-----	Wetness Surface stones Water erosion
Antigo-----	Cobbly surface Water erosion
555A: Fordum-----	Flooding Wetness Cobbly surface Potential poor tilth and compaction
560A: Worwood-----	Wetness
571E: Pelissier-----	Slope Water erosion
612A: Magnor, very stony-----	Wetness Surface stones Cobbly surface
Ossmer-----	Wetness Cobbly surface
623A: Capitola, very stony-----	Wetness Surface stones
624A: Ossmer-----	Wetness Cobbly surface
632B: Aftad-----	Wetness
637B: Newood, very stony-----	Wetness Surface stones Cobbly surface
637C: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
642B: Pesabic, very stony-----	Wetness Surface stones

Table 13.--Forest Land Site Preparation and Planting
Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
642B: Capitola, very stony-----	Wetness Surface stones
Newood, very stony-----	Wetness Surface stones Cobbly surface
648B: Sconsin-----	Wetness Cobbly surface
683A: Tipler-----	Cobbly surface
737D: Santiago, very stony-----	Slope Surface stones Cobbly surface Water erosion
748A: Brander-----	Cobbly surface
755A: Moppet-----	No major considerations
Fordum-----	Flooding Wetness Cobbly surface Potential poor tilth and compaction
757B: Magnor, very stony-----	Wetness Surface stones Cobbly surface
Freeon, very stony-----	Wetness Surface stones
Magnor-----	Wetness Cobbly surface
Freeon-----	Wetness Cobbly surface
766A: Moppet-----	No major considerations
822A: Comstock-----	Wetness Potential poor tilth and compaction
Magnor, very stony-----	Wetness Surface stones Cobbly surface
Ossmer-----	Wetness Cobbly surface
837E: Newot, very stony-----	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
848A: Ribriver-----	Cobbly surface
863B: Crystal Lake-----	Wetness Potential poor tilth and compaction
Freeon, very stony-----	Wetness Surface stones
Sconsin-----	Wetness Cobbly surface
923A: Capitola, very stony-----	Wetness Surface stones
Cebana, very stony-----	Wetness Surface stones Cobbly surface
956B: Magnor, very stony-----	Wetness Surface stones Cobbly surface
957B: Freeon, very stony-----	Wetness Surface stones
957C: Freeon, very stony-----	Wetness Surface stones Water erosion
3011A: Barronett-----	Wetness Potential poor tilth and compaction
3456A: Magnor, very stony-----	Wetness Surface stones Cobbly surface
Magnor-----	Wetness Cobbly surface
3525C: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
Padwood-----	Wetness Water erosion
Padus-----	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
3546C: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
Pence, very stony-----	Surface stones Cobbly surface Water erosion
3556C: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
Magnor, very stony-----	Wetness Surface stones Cobbly surface
Cathro-----	Wetness
3561A: Pesabic, very stony-----	Wetness Surface stones
Worwood-----	Wetness
Worcester-----	Wetness Cobbly surface
3569C: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
Pesabic, very stony-----	Wetness Surface stones
Cathro-----	Wetness
3666B: Pesabic, very stony-----	Wetness Surface stones
3863C: Crystal Lake-----	Wetness Water erosion Potential poor tilth and compaction
Freeon, very stony-----	Wetness Surface stones Water erosion
Antigo-----	Cobbly surface Water erosion
9052A: Cathro-----	Wetness
Capitola, very stony-----	Wetness Surface stones

Table 13.--Forest Land Site Preparation and Planting
Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
9052A: Lupton-----	Wetness
9055A: Loxley-----	Wetness
9060D: Pelissier-----	Slope Water erosion
9071B: Freeon, very stony-----	Wetness Surface stones Water erosion
9077C: Freeon, very stony-----	Slope Wetness Surface stones Water erosion
9078A: Freeon, very stony-----	Wetness Surface stones
Magnor, very stony-----	Wetness Surface stones Cobbly surface
Ossmer-----	Wetness Cobbly surface
9081C: Newot, very stony-----	Slope Surface stones Water erosion
9082B: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
9083A: Crystal Lake-----	Wetness Potential poor tilth and compaction
9083B: Crystal Lake-----	Wetness Water erosion Potential poor tilth and compaction
9086A: Freeon, very stony-----	Wetness Surface stones
9087C: Crystal Lake-----	Slope Wetness Water erosion 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
9087C: Freeon, very stony-----	Wetness Surface stones Water erosion
Newot, very stony-----	Slope Surface stones Water erosion
9088A: Newood, very stony-----	Wetness Surface stones Cobbly surface
Capitola, very stony-----	Wetness Surface stones
9089B: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
Lupton-----	Wetness
9090C: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
Newot, very stony-----	Slope Surface stones Water erosion
Lupton-----	Wetness
9092D: Newot, very stony-----	Slope Surface stones Water erosion
9093C: Pence-----	Slope Cobbly surface Water erosion
Padus-----	Slope Cobbly surface Water erosion
9096C: Newot, very stony-----	Slope Surface stones Water erosion
Pesabic, very stony-----	Wetness Surface stones
Lupton-----	Wetness

Table 13.--Forest Land Site Preparation and Planting
Considerations--Continued

Map symbol and soil name	Forest land site preparation and planting considerations
9097B: Newood, very stony-----	Wetness Surface stones Cobbly surface Water erosion
Padus, very stony-----	Surface stones Cobbly surface Water erosion
9098A: Oesterle-----	Wetness
9099B: Antigo-----	Water erosion
9197C: Pelissier-----	Slope Water erosion

Table 14.--Forest Productivity

(Only the soils that are commonly used as forest land are listed. See text for definitions of terms used in this table)

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
22A: Comstock-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	61	43	
	Sugar maple-----	65	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
24A: Poskin-----	Eastern hemlock-----	---	---	Black spruce, red maple, white ash, white spruce
	Red maple-----	65	43	
	White ash-----	---	---	
43B: Antigo-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak---	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	66	43	
	White ash-----	74	72	
	Yellow birch-----	71	43	
43C: Antigo-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak---	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	66	43	
	White ash-----	74	72	
	Yellow birch-----	71	43	
43D: Antigo-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak---	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	66	43	
	White ash-----	74	72	
	Yellow birch-----	71	43	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
48B:				
Brill-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	74	72	
	White spruce-----	---	---	
	Yellow birch-----	71	43	
57B:				
Spencer-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Black cherry-----	---	---	
	Northern red oak----	70	72	
	Quaking aspen-----	---	---	
	Sugar maple-----	63	43	
	Yellow birch-----	---	---	
59A:				
Almena-----	American basswood---	68	57	Black spruce, eastern white pine, red maple, red pine, white spruce
	Quaking aspen-----	---	---	
	Red maple-----	63	43	
	Sugar maple-----	64	43	
63B:				
Crystal Lake-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	61	43	
	White ash-----	71	72	
	Yellow birch-----	---	---	
63C:				
Crystal Lake-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	61	43	
	White ash-----	71	72	
	Yellow birch-----	---	---	
63D:				
Crystal Lake-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	61	43	
	White ash-----	71	72	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
63E: Crystal Lake-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	61	43	
	White ash-----	71	72	
	Yellow birch-----	---	---	
77A: Auburndale-----	American basswood---	---	---	Black spruce, cottonwood, white spruce
	American elm-----	---	---	
	Balsam fir-----	54	100	
	Black ash-----	45	29	
	Red maple-----	55	29	
182B: Padus-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	78	86	
	Eastern hemlock-----	---	---	
	Northern red oak----	70	57	
	Red maple-----	---	---	
	Red pine-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
182C: Padus-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	78	86	
	Eastern hemlock-----	---	---	
	Northern red oak----	70	57	
	Red maple-----	---	---	
	Red pine-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
182D: Padus-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	78	86	
	Eastern hemlock-----	---	---	
	Northern red oak----	70	57	
	Red maple-----	---	---	
	Red pine-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
192A: Worcester-----	Balsam fir-----	---	---	Eastern white pine, red maple, white spruce
	Eastern hemlock-----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	55	29	
	Sugar maple-----	---	---	
	White spruce-----	---	---	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
193A: Minocqua-----	Balsam fir-----	54	100	Black spruce, red maple, white ash, white spruce
	Black ash-----	---	---	
	Eastern arborvitae--	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	55	29	
	Tamarack-----	55	57	
	White ash-----	---	---	
215B: Pence-----	American basswood---	---	---	Eastern white pine, jack pine, red pine
	Balsam fir-----	---	---	
	Eastern white pine--	57	114	
	Northern red oak---	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	59	100	
	Sugar maple-----	59	43	
	Yellow birch-----	---	---	
215C: Pence-----	American basswood---	---	---	Eastern white pine, jack pine, red pine
	Balsam fir-----	---	---	
	Eastern white pine--	57	114	
	Northern red oak---	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	59	100	
	Sugar maple-----	59	43	
	Yellow birch-----	---	---	
215D: Pence-----	American basswood---	---	---	Eastern white pine, jack pine, red pine
	Balsam fir-----	---	---	
	Eastern white pine--	57	114	
	Northern red oak---	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	59	100	
	Sugar maple-----	59	43	
	Yellow birch-----	---	---	
308B: Blackriver-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak---	70	72	
	Red maple-----	---	---	
	Sugar maple-----	63	43	
	White ash-----	---	---	
	White spruce-----	---	---	
	Yellow birch-----	---	---	
315A: Rib-----	American elm-----	---	---	Red maple, white spruce
	Black ash-----	---	---	
	Red maple-----	55	29	
	Silver maple-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
324A: Maplehurst-----	American elm-----	---	---	Black spruce, red maple, white ash, white spruce
	Balsam fir-----	---	---	
	Eastern hemlock-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	---	---	
	White ash-----	---	---	
	White spruce-----	---	---	
	Yellow birch-----	---	---	
337A: Plover-----	American basswood---	---	---	Black spruce, eastern white pine, white spruce
	American elm-----	---	---	
	Red maple-----	65	43	
	Yellow birch-----	---	---	
345B: Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak---	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
Sconsin-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Eastern white pine---	---	---	
	Northern red oak---	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
346E: Newot, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Black cherry-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak---	---	---	
	Paper birch-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Pence, very stony-----	American basswood---	---	---	Eastern white pine, jack pine, red pine
	Balsam fir-----	---	---	
	Eastern white pine---	57	114	
	Northern red oak---	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	59	100	
	Sugar maple-----	59	43	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
355B: Loyal-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Eastern white pine--	---	---	
	Northern red oak----	---	---	
	Sugar maple-----	60	43	
	White ash-----	---	---	
355C: Loyal-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Eastern white pine--	---	---	
	Northern red oak----	---	---	
	Sugar maple-----	60	43	
	White ash-----	---	---	
356A: Withee-----	American basswood---	---	---	Eastern white pine, red maple, red pine, white ash, white spruce
	Northern red oak----	69	57	
	Red maple-----	---	---	
	Sugar maple-----	64	43	
	White ash-----	69	57	
	Yellow birch-----	---	---	
357A: Marshfield-----	Balsam fir-----	---	---	Red maple, white ash, white spruce
	Black ash-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	White ash-----	54	43	
	White spruce-----	---	---	
408A: Lupton-----	Balsam fir-----	46	86	---
	Black ash-----	---	---	
	Black spruce-----	20	29	
	Eastern arborvitae--	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Tamarack-----	---	---	
	White spruce-----	---	---	
Cathro-----	Balsam fir-----	40	72	White spruce
	Black spruce-----	15	29	
	Eastern arborvitae--	15	29	
	Paper birch-----	---	---	
	Red maple-----	40	29	
	Tamarack-----	35	29	
	White spruce-----	---	---	
414A: Loxley-----	Balsam fir-----	---	---	---
	Black spruce-----	15	29	
	Tamarack-----	---	---	
Beseman-----	Black spruce-----	35	43	Black spruce, tamarack
	Tamarack-----	50	29	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
457B:				
Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
Freeon-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
457C:				
Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
Freeon-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
515A:				
Manitowish-----	Eastern white pine--	---	---	Eastern white pine, jack pine, red pine
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	59	100	
	Sugar maple-----	60	43	
525B:				
Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
525B: Padwood-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Tipler-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Northern red oak----	70	57	
	Red maple-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
527B: Padwood-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
537D: Newot, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Black cherry-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Cathro-----	Balsam fir-----	40	72	White spruce
	Black spruce-----	15	29	
	Eastern arborvitae--	15	29	
	Paper birch-----	---	---	
	Red maple-----	40	29	
	Tamarack-----	35	29	
	White spruce-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
545C: Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
Antigo-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	66	43	
	White ash-----	74	72	
	Yellow birch-----	71	43	
555A: Fordum-----	Balsam fir-----	---	---	Red maple, silver maple, white ash
	Black spruce-----	---	---	
	Eastern arborvitae--	---	---	
	Red maple-----	---	---	
	Silver maple-----	80	29	
	Tamarack-----	---	---	
	White ash-----	---	---	
	White spruce-----	---	---	
560A: Worwood-----	Balsam fir-----	---	---	Eastern white pine, red maple, red pine, white ash, white spruce
	Eastern hemlock----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	60	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
571E: Pelissier-----	Balsam fir-----	---	---	Eastern white pine, jack pine, red pine
	Eastern white pine--	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	66	114	
	White spruce-----	---	---	
612A: Magnor, very stony-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Northern red oak----	67	57	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	61	43	
	White ash-----	68	57	
	Yellow birch-----	65	43	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
612A: Ossmer-----	Balsam fir-----	---	---	Red maple, white ash, white spruce
	Paper birch-----	---	---	
	Quaking aspen-----	78	86	
	Red maple-----	66	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
623A: Capitola, very stony----	American elm-----	---	---	Balsam fir, black spruce, red maple, white ash, white spruce
	Balsam fir-----	52	100	
	Black ash-----	48	29	
	Eastern arborvitae--	---	---	
	Eastern hemlock-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	56	29	
	Tamarack-----	---	---	
624A: Ossmer-----	Balsam fir-----	---	---	Red maple, white ash, white spruce
	Paper birch-----	---	---	
	Quaking aspen-----	78	86	
	Red maple-----	66	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
632B: Aftad-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Northern red oak---	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	60	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
637B: Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak---	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
637C: Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak---	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
642B: Pesabic, very stony-----	Balsam fir-----	---	---	Eastern white pine, red maple, red pine, white ash, white spruce
	Eastern hemlock----	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
Capitola, very stony----	American elm-----	---	---	Balsam fir, black spruce, red maple, white ash, white spruce
	Balsam fir-----	52	100	
	Black ash-----	48	29	
	Eastern arborvitae--	---	---	
	Eastern hemlock----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	56	29	
	Tamarack-----	---	---	
Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
648B: Sconsin-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
683A: Tipler-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock----	---	---	
	Northern red oak----	70	57	
	Red maple-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
737D: Santiago, very stony----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Northern red oak----	64	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	---	---	
	Sugar maple-----	---	---	
	White ash-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
748A:				
Brander-----	American elm-----	---	---	Eastern white pine, red pine, white spruce
	Eastern white pine--	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White spruce-----	---	---	
755A:				
Moppet-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Eastern white pine--	---	---	
	Northern red oak---	---	---	
	Red maple-----	60	43	
	White ash-----	---	---	
	White spruce-----	---	---	
Fordum-----	Balsam fir-----	---	---	Red maple, silver maple, white ash
	Black spruce-----	---	---	
	Eastern arborvitae--	---	---	
	Red maple-----	---	---	
	Silver maple-----	80	29	
	Tamarack-----	---	---	
	White ash-----	---	---	
	White spruce-----	---	---	
757B:				
Magnor, very stony-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Northern red oak---	67	57	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	61	43	
	White ash-----	68	57	
	Yellow birch-----	65	43	
Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak---	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
Magnor-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Northern red oak---	67	57	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	61	43	
	White ash-----	68	57	
	Yellow birch-----	65	43	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
757B:				
Freeon-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
766A:				
Moppet-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Eastern white pine--	---	---	
	Northern red oak----	---	---	
	Red maple-----	60	43	
	White ash-----	---	---	
	White spruce-----	---	---	
822A:				
Comstock-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	61	43	
	Sugar maple-----	65	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Magnor, very stony-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Northern red oak----	67	57	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	61	43	
	White ash-----	68	57	
	Yellow birch-----	65	43	
Ossmer-----	Balsam fir-----	---	---	Red maple, white ash, white spruce
	Paper birch-----	---	---	
	Quaking aspen-----	78	86	
	Red maple-----	66	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
837E:				
Newot, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Black cherry-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
848A:				
Ribriver-----	American elm-----	---	---	Eastern white pine, red pine, white spruce
	Eastern white pine--	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White spruce-----	---	---	
863B:				
Crystal Lake-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	61	43	
	White ash-----	71	72	
	Yellow birch-----	---	---	
Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak---	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
Sconsin-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak---	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
923A:				
Capitola, very stony----	American elm-----	---	---	Balsam fir, black spruce, red maple, white ash, white spruce
	Balsam fir-----	52	100	
	Black ash-----	48	29	
	Eastern arborvitae--	---	---	
	Eastern hemlock-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	56	29	
	Tamarack-----	---	---	
Cebana, very stony-----	American elm-----	---	---	Balsam fir, black spruce, red maple, white ash, white spruce
	Balsam fir-----	52	100	
	Black ash-----	48	29	
	Eastern arborvitae--	---	---	
	Eastern hemlock-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	56	29	
	Tamarack-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
956B: Magnor, very stony-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Northern red oak---	67	57	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	61	43	
	White ash-----	68	57	
	Yellow birch-----	65	43	
957B: Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak---	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
957C: Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak---	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
3011A: Barronett-----	American elm-----	---	---	Black spruce, white spruce
	Black ash-----	---	---	
	Quaking aspen-----	---	---	
	Tamarack-----	40	29	
	Willow-----	---	---	
3456A: Magnor, very stony-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Northern red oak---	67	57	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	61	43	
	White ash-----	68	57	
	Yellow birch-----	65	43	
Magnor-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Northern red oak---	67	57	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	61	43	
	White ash-----	68	57	
	Yellow birch-----	65	43	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
3525C: Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Padwood-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Padus-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	78	86	
	Eastern hemlock-----	---	---	
	Northern red oak----	70	57	
	Red maple-----	---	---	
	Red pine-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
3546C: Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Pence, very stony-----	American basswood---	---	---	Eastern white pine, jack pine, red pine
	Balsam fir-----	---	---	
	Eastern white pine--	57	114	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	59	100	
	Sugar maple-----	59	43	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
3556C:				
Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Magnor, very stony-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Northern red oak----	67	57	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	61	43	
	White ash-----	68	57	
	Yellow birch-----	65	43	
Cathro-----	Balsam fir-----	40	72	White spruce
	Black spruce-----	15	29	
	Eastern arborvitae--	15	29	
	Paper birch-----	---	---	
	Red maple-----	40	29	
	Tamarack-----	35	29	
	White spruce-----	---	---	
3561A:				
Pesabic, very stony-----	Balsam fir-----	---	---	Eastern white pine, red maple, red pine, white ash, white spruce
	Eastern hemlock-----	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
Worwood-----	Balsam fir-----	---	---	Eastern white pine, red maple, red pine, white ash, white spruce
	Eastern hemlock-----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	60	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
Worcester-----	Balsam fir-----	---	---	Eastern white pine, red maple, white spruce
	Eastern hemlock-----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	55	29	
	Sugar maple-----	---	---	
	White spruce-----	---	---	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
3569C: Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Pesabic, very stony-----	Balsam fir-----	---	---	Eastern white pine, red maple, red pine, white ash, white spruce
	Eastern hemlock-----	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
Cathro-----	Balsam fir-----	40	72	White spruce
	Black spruce-----	15	29	
	Eastern arborvitae--	15	29	
	Paper birch-----	---	---	
	Red maple-----	40	29	
	Tamarack-----	35	29	
	White spruce-----	---	---	
3666B: Pesabic, very stony-----	Balsam fir-----	---	---	Eastern white pine, red maple, red pine, white ash, white spruce
	Eastern hemlock-----	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
3863C: Crystal Lake-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	61	43	
	White ash-----	71	72	
	Yellow birch-----	---	---	
Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
3863C:				
Antigo-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak---	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	66	43	
	White ash-----	74	72	
	Yellow birch-----	71	43	
9052A:				
Cathro-----	Balsam fir-----	40	72	White spruce
	Black spruce-----	15	29	
	Eastern arborvitae--	15	29	
	Paper birch-----	---	---	
	Red maple-----	40	29	
	Tamarack-----	35	29	
	White spruce-----	---	---	
Capitola, very stony----	American elm-----	---	---	Balsam fir, black spruce, red maple, white ash, white spruce
	Balsam fir-----	52	100	
	Black ash-----	48	29	
	Eastern arborvitae--	---	---	
	Eastern hemlock-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	56	29	
	Tamarack-----	---	---	
Lupton-----	Balsam fir-----	46	86	---
	Black ash-----	---	---	
	Black spruce-----	20	29	
	Eastern arborvitae--	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Tamarack-----	---	---	
	White spruce-----	---	---	
9055A:				
Loxley-----	Balsam fir-----	---	---	---
	Black spruce-----	15	29	
	Tamarack-----	---	---	
9060D:				
Pelissier-----	Balsam fir-----	---	---	Eastern white pine, jack pine, red pine
	Eastern white pine--	---	---	
	Northern red oak---	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	66	114	
	White spruce-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
9071B: Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
9077C: Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
9078A: Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
Magnor, very stony-----	American basswood---	67	57	Eastern white pine, red pine, white spruce
	American hornbeam---	---	---	
	Balsam fir-----	---	---	
	Northern red oak----	67	57	
	Quaking aspen-----	---	---	
	Red maple-----	65	43	
	Sugar maple-----	61	43	
	White ash-----	68	57	
	Yellow birch-----	65	43	
Ossmer-----	Balsam fir-----	---	---	Red maple, white ash, white spruce
	Paper birch-----	---	---	
	Quaking aspen-----	78	86	
	Red maple-----	66	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
9081C: Newot, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Black cherry-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
9082B: Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
9083A: Crystal Lake-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	61	43	
	White ash-----	71	72	
	Yellow birch-----	---	---	
9083B: Crystal Lake-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	61	43	
	White ash-----	71	72	
	Yellow birch-----	---	---	
9086A: Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	
9087C: Crystal Lake-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	American elm-----	---	---	
	Bigtooth aspen-----	---	---	
	Black cherry-----	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	61	43	
	White ash-----	71	72	
	Yellow birch-----	---	---	
Freeon, very stony-----	American basswood---	---	---	Black spruce, eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Northern red oak----	63	57	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	62	43	
	White ash-----	---	---	
	White oak-----	62	57	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
9087C: Newot, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Black cherry-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
9088A: Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Capitola, very stony----	American elm-----	---	---	Balsam fir, black spruce, red maple, white ash, white spruce
	Balsam fir-----	52	100	
	Black ash-----	48	29	
	Eastern arborvitae--	---	---	
	Eastern hemlock-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	56	29	
	Tamarack-----	---	---	
9089B: Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Lupton-----	Balsam fir-----	46	86	---
	Black ash-----	---	---	
	Black spruce-----	20	29	
	Eastern arborvitae--	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Tamarack-----	---	---	
	White spruce-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
9090C: Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Newot, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Black cherry-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Lupton-----	Balsam fir-----	46	86	---
	Black ash-----	---	---	
	Black spruce-----	20	29	
	Eastern arborvitae--	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Tamarack-----	---	---	
	White spruce-----	---	---	
9092D: Newot, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Black cherry-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
9093C: Pence-----	American basswood---	---	---	Eastern white pine, jack pine, red pine
	Balsam fir-----	---	---	
	Eastern white pine--	57	114	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	59	100	
	Sugar maple-----	59	43	
	Yellow birch-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
9093C:				
Padus-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	78	86	
	Eastern hemlock-----	---	---	
	Northern red oak----	70	57	
	Red maple-----	---	---	
	Red pine-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	
9096C:				
Newot, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Black cherry-----	---	---	
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Pesabic, very stony-----	Balsam fir-----	---	---	Eastern white pine, red maple, red pine, white ash, white spruce
	Eastern hemlock-----	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	59	43	
	Sugar maple-----	---	---	
	Yellow birch-----	---	---	
Lupton-----	Balsam fir-----	46	86	---
	Black ash-----	---	---	
	Black spruce-----	20	29	
	Eastern arborvitae--	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Tamarack-----	---	---	
	White spruce-----	---	---	
9097B:				
Newood, very stony-----	Bigtooth aspen-----	---	---	Eastern white pine, red pine, white spruce
	Eastern hemlock-----	---	---	
	Eastern hophornbeam	---	---	
	Northern red oak----	---	---	
	Paper birch-----	---	---	
	Red maple-----	---	---	
	Sugar maple-----	59	43	
	White ash-----	---	---	
	Yellow birch-----	---	---	
Padus, very stony-----	American basswood---	---	---	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	78	86	
	Eastern hemlock-----	---	---	
	Northern red oak----	70	57	
	Red maple-----	---	---	
	Red pine-----	---	---	
	Sugar maple-----	67	43	
	White ash-----	---	---	

Table 14.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
9098A: Oesterle-----	Balsam fir-----	---	---	Red maple, white ash, white spruce
	Northern red oak---	72	72	
	Paper birch-----	---	---	
	Quaking aspen-----	78	86	
	Red maple-----	66	43	
	Yellow birch-----	---	---	
9099B: Antigo-----	American basswood---	69	57	Eastern white pine, red pine, white spruce
	Bigtooth aspen-----	---	---	
	Eastern white pine--	---	---	
	Northern red oak---	---	---	
	Quaking aspen-----	---	---	
	Sugar maple-----	66	43	
	White ash-----	74	72	
	Yellow birch-----	71	43	
9197C: Pelissier-----	Balsam fir-----	---	---	Eastern white pine, jack pine, red pine
	Eastern white pine--	---	---	
	Northern red oak---	---	---	
	Paper birch-----	---	---	
	Quaking aspen-----	---	---	
	Red maple-----	---	---	
	Red pine-----	66	114	
	White spruce-----	---	---	

Table 15.--Forest Habitat Types

(This table lists either the dominant habitat type, the codominant habitat types, or the most common habitat types for each map unit. An asterisk indicates that the map unit is within the Medford District of the Chequamegon-Nicolet National Forest. Habitat types for the map units marked with an asterisk are based on data from sites sampled by the USDA Forest Service. Habitat types for other map units are based on data from the Forest Service, other studies, and field observations or on estimates by personnel of the Natural Resources Conservation Service, the Forest Service, and the Wisconsin Department of Natural Resources. 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	Most common habitat types
22A----- Comstock silt loam, 0 to 3 percent slopes		ACaI, AHI	
24A----- Poskin silt loam, 0 to 3 percent slopes			ACaI, AHI, ArAbCo
43B----- Antigo silt loam, 1 to 6 percent slopes		AH, AOCa	
43C----- Antigo silt loam, 6 to 15 percent slopes		AH, AOCa	
43D----- Antigo silt loam, 15 to 30 percent slopes		AH, AOCa	
48B----- Brill silt loam, 1 to 6 percent slopes		AH, AOCa	
57B----- Spencer silt loam, 1 to 6 percent slopes		AH, AOCa	
59A----- Almena silt loam, 0 to 3 percent slopes			ACaI, AHI, ArAbCo
63B----- Crystal Lake silt loam, 2 to 6 percent slopes		AH, AOCa	
63C----- Crystal Lake silt loam, 6 to 12 percent slopes		AH, AOCa	
63D----- Crystal Lake silt loam, 12 to 20 percent slopes		AH, AOCa	
63E----- Crystal Lake silt loam, 20 to 35 percent slopes		AH, AOCa	

Table 15.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Most common habitat types
77A----- Auburndale silt loam, 0 to 2 percent slopes	Llmin		
182B----- Padus sandy loam, 0 to 6 percent slopes	ATM		
182C----- Padus sandy loam, 6 to 15 percent slopes	ATM		
182D----- Padus sandy loam, 15 to 30 percent slopes		ATM, AVVb	
192A----- Worcester sandy loam, 0 to 3 percent slopes	TMC		
193A----- Minocqua muck, 0 to 2 percent slopes	Llmin		
215B----- Pence sandy loam, 0 to 6 percent slopes		ATM, AVVb	
215C----- Pence sandy loam, 6 to 15 percent slopes		ATM, AVVb	
215D----- Pence sandy loam, 15 to 30 percent slopes		ATM, AVVb	
308B----- Blackriver silt loam, 1 to 6 percent slopes		AH, AOCa	
315A----- Rib silt loam, 0 to 2 percent slopes	Llmin		
324A----- Maplehurst silt loam, 0 to 3 percent slopes			ACaI, AHI, ArAbCo
337A----- Plover fine sandy loam, 0 to 3 percent slopes	TMC		
345B----- Freeon, very stony-Sconsin complex, 2 to 6 percent slopes		AH, AOCa	
346E----- Newot-Pence complex, 15 to 45 percent slopes, very stony		ATM, AVVb	

Table 15.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Most common habitat types
355B----- Loyal silt loam, 1 to 6 percent slopes	AH		
355C----- Loyal silt loam, 6 to 12 percent slopes	AH		
356A----- Withee silt loam, 0 to 3 percent slopes	AHI		
357A----- Marshfield silt loam, 0 to 2 percent slopes	Llmin		
408A----- Lupton and Cathro soils, 0 to 1 percent slopes	Lnorg		
414A----- Loxley and Beseman soils, 0 to 1 percent slopes	Laorg		
457B----- Freeon, very stony-Freeon complex, ground moraine, 1 to 6 percent slopes		AH, AOCa	
457C----- Freeon, very stony-Freeon complex, ground moraine, 6 to 12 percent slopes		AH, AOCa	
515A----- Manitowish sandy loam, 0 to 3 percent slopes	ATM		
525B----- Newood, very stony-Padwood-Tipler complex, 2 to 6 percent slopes	ATM		
527B----- Padwood sandy loam, 0 to 6 percent slopes	ATM		
537D----- Newot, very stony-Newood, very stony-Cathro complex, 0 to 35 percent slopes			ATM, TMC, Lnorg
545C----- Freeon, very stony-Antigo complex, 6 to 15 percent slopes		AH, AOCa	
555A----- Fordum silt loam, 0 to 2 percent slopes	Lfp		

Table 15.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Most common habitat types
560A----- Worwood sandy loam, 0 to 3 percent slopes	TMC		
571E----- Pelissier gravelly sandy loam, 15 to 45 percent slopes		ATM, AVVb	
612A----- Magnor, very stony-Ossmer complex, 0 to 3 percent slopes			ACaI, AHI, ArAbCo
623A----- Capitola muck, 0 to 2 percent slopes, very stony	Llmin		
624A----- Ossmer silt loam, 0 to 3 percent slopes			ACaI, AHI, ArAbCo
632B----- Aftad fine sandy loam, 2 to 6 percent slopes	ATM		
637B----- Newood sandy loam, 2 to 6 percent slopes, very stony	ATM		
637C----- Newood sandy loam, 6 to 15 percent slopes, very stony	ATM		
642B----- Pesabic-Capitola-Newood complex, 0 to 6 percent slopes, very stony		TMC, Llmin	
648B----- Sconsin silt loam, 1 to 6 percent slopes		AH, AOCa	
683A----- Tipler sandy loam, 0 to 3 percent slopes	ATM		
737D----- Santiago silt loam, 15 to 30 percent slopes, very stony		AH, AOCa	
748A----- Brander silt loam, 0 to 3 percent slopes		AH, AOCa	
755A----- Moppet-Fordum complex, 0 to 3 percent slopes			ATM, ATAtOn, Lfp

Table 15.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Most common habitat types
757B----- Magnor-Freeon complex, 0 to 6 percent slopes, very stony			AH, AOCa, AHI
766A----- Moppet fine sandy loam, 0 to 3 percent slopes			ATM, ATAtOn, AH
822A----- Comstock-Magnor, very stony-Ossmer complex, 0 to 3 percent slopes		ACaI, AHI	
837E----- Newot sandy loam, 15 to 45 percent slopes, very stony		ATM, AVVb	
848A----- Ribriver silt loam, 0 to 3 percent slopes		AH, AOCa	
863B----- Crystal Lake-Freeon, very stony-Sconsin complex, 2 to 6 percent slopes		AH, AOCa	
923A----- Capitola-Cebana complex, 0 to 2 percent slopes, very stony	Llmin		
956B----- Magnor silt loam, end moraine, 0 to 4 percent slopes, very stony		ACaI, AHI	
957B----- Freeon silt loam, end moraine, 2 to 6 percent slopes, very stony		AOCa, ATM	
957C----- Freeon silt loam, end moraine, 6 to 15 percent slopes, very stony		AOCa, ATM	
2015. Pits			
3011A----- Barronett silt loam, 0 to 2 percent slopes	Llmin		
3456A----- Magnor, very stony-Magnor complex, ground moraine, 0 to 3 percent slopes			ACaI, AHI, ArAbCo

Table 15.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Most common habitat types
3525C----- Newood, very stony-Padwood-Padus complex, 6 to 15 percent slopes	ATM		
3546C----- Newood-Pence complex, 6 to 15 percent slopes, very stony	ATM		
3556C----- Newood, very stony-Magnor, very stony-Cathro complex, 0 to 15 percent slopes			ATM, ArAbCo, Lnorg
3561A----- Pesabic, very stony-Worwood-Worcester complex, 0 to 3 percent slopes	TMC		
3569C----- Newood, very stony-Pesabic, very stony-Cathro complex, 0 to 15 percent slopes			ATM, TMC, Lnorg
3666B----- Pesabic sandy loam, 0 to 4 percent slopes, very stony	TMC		
3863C----- Crystal Lake-Freeon, very stony-Antigo complex, 6 to 15 percent slopes		AH, AOCa	
9052A*----- Cathro-Capitola, very stony-Lupton complex, 0 to 1 percent slopes		Lnorg, Llmin	
9055A*----- Loxley peat, 0 to 1 percent slopes	Laorg		
9060D*----- Pelissier sandy loam, 20 to 45 percent slopes	ATM		
9071B*----- Freeon silt loam, 5 to 10 percent slopes, very stony		AH, AOCa	
9077C*----- Freeon silt loam, 10 to 20 percent slopes, very stony		AH, AOCa	
9078A*----- Freeon, very stony-Magnor, very stony-Ossmer complex, 0 to 5 percent slopes			ATM, TMC, ATAtOn

Table 15.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Most common habitat types
9081C*----- Newot sandy loam, 10 to 30 percent slopes, very stony	ATM		
9082B*----- Newood sandy loam, 5 to 10 percent slopes, very stony	ATM		
9083A*----- Crystal Lake silt loam, 0 to 5 percent slopes		AH, AOCa	
9083B*----- Crystal Lake silt loam, 5 to 10 percent slopes		AH, AOCa	
9086A*----- Freeon silt loam, 0 to 5 percent slopes, very stony		AH, AOCa	
9087C*----- Crystal Lake-Freeon, very stony-Newot, very stony, complex, 10 to 20 percent slopes		AH, AOCa	
9088A*----- Newood-Capitola complex, 0 to 5 percent slopes, very stony			ATM, TMC, Llmin
9089B*----- Newood, very stony-Lupton complex, 0 to 10 percent slopes			ATM, TMC, Lnorg
9090C*----- Newood, very stony-Newot, very stony-Lupton complex, 0 to 30 percent slopes			ATM, TMC, Lnorg
9092D*----- Newot sandy loam, 20 to 45 percent slopes, very stony		ATM, AVVb	
9093C*----- Pence-Padus complex, 10 to 30 percent slopes		ATM, AVVb	
9096C*----- Newot, very stony-Pesabic, very stony-Lupton complex, 0 to 30 percent slopes			ATM, TMC, Lnorg
9097B*----- Newood-Padus complex, 5 to 10 percent slopes, very stony	ATM		
9098A*----- Oesterle loam, 0 to 3 percent slopes			ACaI, AHI, ArAbCo

Table 15.--Forest Habitat Types--Continued

Map symbol and map unit name	Dominant habitat type	Codominant habitat types	Most common habitat types
9099B*----- Antigo silt loam, 5 to 10 percent slopes		AH, AOCa	
9197C*----- Pelissier very cobbly sandy loam, 10 to 30 percent slopes		ATM, AVVb	
M-W. Miscellaneous water			
W. Water			

Table 16a.--Recreation

(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
22A: Comstock-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
24A: Poskin-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
43B: Antigo-----	Not limited		Not limited		Somewhat limited Slope	0.50
43C: Antigo-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
43D: Antigo-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
48B: Brill-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone Slope	0.98 0.50
57B: Spencer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Slope	1.00 0.50
59A: Almena-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
63B: Crystal Lake-----	Somewhat limited Depth to saturated zone Restricted permeability	0.39 0.21	Somewhat limited Restricted permeability Depth to saturated zone	0.21 0.19	Somewhat limited Slope Depth to saturated zone Restricted permeability	0.50 0.39 0.21

Table 16a.--Recreation--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
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
63D: Crystal Lake-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
63E: Crystal Lake-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
77A: Auburndale-----	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
182B: Padus-----	Not limited		Not limited		Somewhat limited	
					Slope	0.12
					Gravel content	0.02
182C: Padus-----	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
					Gravel content	0.02
182D: Padus-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.02
192A: Worcester-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
					Gravel content	0.02
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
215B: Pence-----	Not limited		Not limited		Somewhat limited	
					Slope	0.12
					Content of large stones	0.01
					Gravel content	0.01

Table 16a.--Recreation--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
215C: Pence-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope Content of large stones Gravel content	1.00 0.01 0.01
215D: Pence-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Content of large stones Gravel content	1.00 0.01 0.01
308B: Blackriver-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone Slope	0.98 0.50
315A: Rib-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
324A: Maplehurst-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
337A: Plover-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
345B: Freeon, very stony--	Very limited Depth to saturated zone Gravel content Too stony Restricted permeability	1.00 1.00 0.50 0.43	Very limited Depth to saturated zone Gravel content Too stony Restricted permeability	1.00 1.00 0.50 0.43	Very limited Gravel content Depth to saturated zone Slope Too stony Restricted permeability	1.00 1.00 0.50 0.50 0.43
Sconsin-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone Slope	0.98 0.50
346E: Newot, very stony---	Very limited Slope Gravel content Restricted permeability Too stony	1.00 1.00 0.96 0.50	Very limited Slope Gravel content Restricted permeability Too stony	1.00 1.00 0.96 0.50	Very limited Gravel content Slope Restricted permeability Too stony	1.00 1.00 0.96 0.50

Table 16a.--Recreation--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
346E: Pence, very stony---	Very limited Slope Too stony	 1.00 0.50	Very limited Slope Too stony	 1.00 0.50	Very limited Slope Too stony Content of large stones Gravel content	 1.00 0.50 0.01 0.01
355B: Loyal-----	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21	Very limited Depth to saturated zone Slope Restricted permeability	 1.00 0.50 0.21
355C: Loyal-----	Very limited Depth to saturated zone Restricted permeability Slope	 1.00 0.21 0.04	Very limited Depth to saturated zone Restricted permeability Slope	 1.00 0.21 0.04	Very limited Depth to saturated zone Slope Restricted permeability	 1.00 1.00 0.21
356A: Withee-----	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21	Very limited Depth to saturated zone Restricted permeability	 1.00 0.21
357A: Marshfield-----	Very limited Depth to saturated zone Ponding Restricted permeability	 1.00 1.00 0.21	Very limited Depth to saturated zone Ponding Restricted permeability	 1.00 1.00 0.21	Very limited Depth to saturated zone Ponding Restricted permeability	 1.00 1.00 0.21
408A: Lupton-----	Very limited Depth to saturated zone Gravel content Content of organic matter Ponding	 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Gravel content Ponding	 1.00 1.00 1.00 1.00	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	 1.00 1.00 1.00 1.00
Cathro-----	Very limited Depth to saturated zone Gravel content Content of organic matter Ponding	 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Gravel content Ponding	 1.00 1.00 1.00 1.00	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	 1.00 1.00 1.00 1.00

Table 16a.--Recreation--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
414A:						
Loxley-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Gravel content	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	Gravel content	1.00
	Gravel content	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Gravel content	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
457B:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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
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
457C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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

Table 16a.--Recreation--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
515A: Manitowish-----	Not limited		Not limited		Somewhat limited Content of large stones	0.01
					Gravel content	0.01
525B: Newood, very stony--	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability	0.96
	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	0.16
Padwood-----	Somewhat limited Depth to saturated zone	0.39	Somewhat limited Depth to saturated zone	0.19	Somewhat limited Slope	0.50
					Depth to saturated zone	0.39
					Gravel content	0.06
Tipler-----	Not limited		Not limited		Somewhat limited Gravel content	0.02
527B: Padwood-----	Somewhat limited Depth to saturated zone	0.39	Somewhat limited Depth to saturated zone	0.19	Somewhat limited Depth to saturated zone	0.39
					Slope	0.12
					Gravel content	0.06
537D: Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Slope	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
Newood, very stony--	Somewhat limited Restricted permeability	0.96	Somewhat limited Restricted permeability	0.96	Very limited Slope	1.00
	Too stony	0.50	Too stony	0.50	Restricted permeability	0.96
	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
					Gravel content	0.16
Cathro-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Gravel content	1.00
	Gravel content	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Gravel content	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00

Table 16a.--Recreation--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
545C: Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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	0.37	Slope	0.37	Restricted permeability	0.43
Antigo-----	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
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
560A: Worwood-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Depth to saturated zone	1.00
571E: Pelissier-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Slope	1.00
612A: 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
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
623A: Capitola, 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
	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

Table 16a.--Recreation--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
632B: Aftad-----	Somewhat limited Depth to saturated zone	0.39	Somewhat limited Depth to saturated zone	0.19	Somewhat limited Slope Depth to saturated zone	0.50 0.39
637B: Newood, very stony--	Somewhat limited Restricted permeability Too stony Depth to saturated zone	0.96 0.50 0.39	Somewhat limited Restricted permeability Too stony Depth to saturated zone	0.96 0.50 0.19	Somewhat limited Restricted permeability Slope Too stony Depth to saturated zone Gravel content	0.96 0.50 0.50 0.39 0.16
637C: Newood, very stony--	Somewhat limited Restricted permeability Too stony Depth to saturated zone Slope	0.96 0.50 0.39 0.37	Somewhat limited Restricted permeability Too stony Slope Depth to saturated zone	0.96 0.50 0.37 0.19	Very limited Slope Restricted permeability Too stony Depth to saturated zone Gravel content	1.00 0.96 0.50 0.39 0.16
642B: Pesabic, very stony	Very limited Depth to saturated zone Gravel content Too stony	1.00 1.00 0.50	Very limited Depth to saturated zone Gravel content Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50
Capitola, very stony	Very limited Depth to saturated zone Gravel content Ponding Too stony	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Gravel content Ponding Too stony	1.00 1.00 1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Ponding Too stony	1.00 1.00 1.00 1.00 0.50
Newood, very stony--	Somewhat limited Restricted permeability Too stony Depth to saturated zone	0.96 0.50 0.39	Somewhat limited Restricted permeability Too stony Depth to saturated zone	0.96 0.50 0.19	Somewhat limited Restricted permeability Slope Too stony Depth to saturated zone Gravel content	0.96 0.50 0.50 0.39 0.16
648B: Sconsin-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone Slope	0.98 0.50
683A: Tipler-----	Not limited		Not limited		Somewhat limited Gravel content	0.02

Table 16a.--Recreation--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
737D: Santiago, very stony	Very limited Slope Too stony Restricted permeability	 1.00 0.50 0.43	Very limited Slope Too stony Restricted permeability	 1.00 0.50 0.43	Very limited Slope Too stony Restricted permeability Content of large stones	 1.00 0.50 0.43 0.01
748A: Brander-----	Somewhat limited Depth to saturated zone	 0.98	Somewhat limited Depth to saturated zone	 0.75	Somewhat limited Depth to saturated zone	 0.98
755A: Moppet-----	Very limited Flooding	 1.00	Not limited		Somewhat limited Flooding	 0.60
Fordum-----	Very limited Depth to saturated zone Flooding Ponding	 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Flooding	 1.00 1.00 0.40	Very limited Depth to saturated zone Flooding Ponding Gravel content	 1.00 1.00 1.00 0.04
757B: Magnor, very stony--	Very limited Depth to saturated zone Too stony Restricted permeability	 1.00 0.50 0.43	Very limited Depth to saturated zone Too stony Restricted permeability	 1.00 0.50 0.43	Very limited Depth to saturated zone Too stony Restricted permeability Content of large stones	 1.00 0.50 0.43 0.01
Freeon, very stony--	Very limited Depth to saturated zone Gravel content Too stony Restricted permeability	 1.00 1.00 0.50 0.43	Very limited Depth to saturated zone Gravel content Too stony Restricted permeability	 1.00 1.00 0.50 0.43	Very limited Gravel content Depth to saturated zone Slope Too stony Restricted permeability	 1.00 1.00 0.50 0.50 0.43
Magnor-----	Very limited Depth to saturated zone Restricted permeability	 1.00 0.43	Very limited Depth to saturated zone Restricted permeability	 1.00 0.43	Very limited Depth to saturated zone Restricted permeability	 1.00 0.43
Freeon-----	Very limited Depth to saturated zone Restricted permeability	 1.00 0.43	Very limited Depth to saturated zone Restricted permeability	 1.00 0.43	Very limited Depth to saturated zone Slope Restricted permeability Content of large stones	 1.00 0.50 0.43 0.01

Table 16a.--Recreation--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
766A: Moppet-----	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
822A: Comstock-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Magnor, very stony--	Very limited Depth to saturated zone Too stony Restricted permeability	1.00 0.50 0.43	Very limited Depth to saturated zone Too stony Restricted permeability	1.00 0.50 0.43	Very limited Depth to saturated zone Too stony Restricted permeability Content of large stones	1.00 0.50 0.43 0.01
Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
837E: Newot, very stony---	Very limited Slope Gravel content Restricted permeability Too stony	1.00 1.00 0.96 0.50	Very limited Slope Gravel content Restricted permeability Too stony	1.00 1.00 0.96 0.50	Very limited Gravel content Slope Restricted permeability Too stony	1.00 1.00 0.96 0.50
848A: Ribriver-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone	0.98
863B: Crystal Lake-----	Somewhat limited Depth to saturated zone Restricted permeability	0.39 0.21	Somewhat limited Restricted permeability Depth to saturated zone	0.21 0.19	Somewhat limited Slope Depth to saturated zone Restricted permeability	0.50 0.39 0.21
Freeon, very stony--	Very limited Depth to saturated zone Gravel content Too stony Restricted permeability	1.00 1.00 0.50 0.43	Very limited Depth to saturated zone Gravel content Too stony Restricted permeability	1.00 1.00 0.50 0.43	Very limited Gravel content Depth to saturated zone Slope Too stony Restricted permeability	1.00 1.00 0.50 0.50 0.43
Sconsin-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone Slope	0.98 0.50

Table 16a.--Recreation--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
923A:						
Capitola, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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
Cebana, 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
	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
					Content of large stones	0.01
956B:						
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
957B:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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
957C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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	0.37	Slope	0.37	Restricted permeability	0.43
2015:						
Pits-----	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

Table 16a.--Recreation--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
3456A: Magnor, very stony--	Very limited Depth to saturated zone Too stony Restricted permeability	1.00 0.50 0.43	Very limited Depth to saturated zone Too stony Restricted permeability	1.00 0.50 0.43	Very limited Depth to saturated zone Too stony Restricted permeability Content of large stones	1.00 0.50 0.43 0.01
Magnor-----	Very limited Depth to saturated zone Restricted permeability	1.00 0.43	Very limited Depth to saturated zone Restricted permeability	1.00 0.43	Very limited Depth to saturated zone Restricted permeability	1.00 0.43
3525C: Newood, very stony--	Somewhat limited Restricted permeability Too stony Depth to saturated zone Slope	0.96 0.50 0.39 0.37	Somewhat limited Restricted permeability Too stony Slope Depth to saturated zone	0.96 0.50 0.37 0.19	Very limited Slope Restricted permeability Too stony Depth to saturated zone Gravel content	1.00 0.96 0.50 0.39 0.16
Padwood-----	Somewhat limited Depth to saturated zone Slope	0.39 0.37	Somewhat limited Slope Depth to saturated zone	0.37 0.19	Very limited Slope Depth to saturated zone Gravel content	1.00 0.39 0.06
Padus-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope Gravel content	1.00 0.02
3546C: Newood, very stony--	Somewhat limited Restricted permeability Too stony Depth to saturated zone Slope	0.96 0.50 0.39 0.37	Somewhat limited Restricted permeability Too stony Slope Depth to saturated zone	0.96 0.50 0.37 0.19	Very limited Slope Restricted permeability Too stony Depth to saturated zone Gravel content	1.00 0.96 0.50 0.39 0.16
Pence, very stony---	Somewhat limited Too stony Slope	0.50 0.37	Somewhat limited Too stony Slope	0.50 0.37	Very limited Slope Too stony Content of large stones Gravel content	1.00 0.50 0.01 0.01

Table 16a.--Recreation--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
3556C:						
Newood, very stony--	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.96	Restricted permeability	0.96	Slope	1.00
	Too stony	0.50	Too stony	0.50	Restricted permeability	0.96
	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
					Gravel content	0.16
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
Cathro-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Gravel content	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
3561A:						
Pesabic, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Depth to saturated zone	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
Worwood-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Depth to saturated zone	1.00
Worcester-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
					Gravel content	0.02
3569C:						
Newood, very stony--	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.96	Restricted permeability	0.96	Slope	1.00
	Too stony	0.50	Too stony	0.50	Restricted permeability	0.96
	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	0.16

Table 16a.--Recreation--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
3569C: Pesabic, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Depth to saturated zone	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
Cathro-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Gravel content	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
3666B: Pesabic, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Depth to saturated zone	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
3863C: Crystal Lake-----	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.39	Slope	0.37	Slope	1.00
	Slope	0.37	Restricted permeability	0.21	Depth to saturated zone	0.39
	Restricted permeability	0.21	Depth to saturated zone	0.19	Restricted permeability	0.21
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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	0.37	Slope	0.37	Restricted permeability	0.43
Antigo-----	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
9052A: Cathro-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Gravel content	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Capitola, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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

Table 16a.--Recreation--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
9052A: Lupton-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Gravel content	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
9055A: Loxley-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Gravel content	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
9060D: Pelissier-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Slope	1.00
9071B: Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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
					Restricted permeability	0.43
9077C: Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Depth to saturated zone	1.00
	Slope	1.00	Slope	1.00	Slope	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
9078A: Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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
					Slope	0.12
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

Table 16a.--Recreation--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
9078A: Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
9081C: Newot, very stony---	Very limited Gravel content Slope Restricted permeability Too stony	1.00 1.00 0.96 0.50	Very limited Gravel content Slope Restricted permeability Too stony	1.00 1.00 0.96 0.50	Very limited Gravel content Slope Restricted permeability Too stony	1.00 1.00 0.96 0.50
9082B: Newood, very stony--	Somewhat limited Restricted permeability Too stony Depth to saturated zone	0.96 0.50 0.39	Somewhat limited Restricted permeability Too stony Depth to saturated zone	0.96 0.50 0.19	Very limited Slope Restricted permeability Too stony Depth to saturated zone Gravel content	1.00 0.96 0.50 0.39 0.16
9083A: Crystal Lake-----	Somewhat limited Depth to saturated zone Restricted permeability	0.39 0.21	Somewhat limited Restricted permeability Depth to saturated zone	0.21 0.19	Somewhat limited Depth to saturated zone Restricted permeability Slope	0.39 0.21 0.12
9083B: Crystal Lake-----	Somewhat limited Depth to saturated zone Restricted permeability	0.39 0.21	Somewhat limited Restricted permeability Depth to saturated zone	0.21 0.19	Very limited Slope Depth to saturated zone Restricted permeability	1.00 0.39 0.21
9086A: Freeon, very stony--	Very limited Depth to saturated zone Gravel content Too stony Restricted permeability	1.00 1.00 0.50 0.43	Very limited Depth to saturated zone Gravel content Too stony Restricted permeability	1.00 1.00 0.50 0.43	Very limited Gravel content Depth to saturated zone Too stony Restricted permeability Slope	1.00 1.00 0.50 0.43 0.12
9087C: Crystal Lake-----	Very limited Slope Depth to saturated zone Restricted permeability	1.00 0.39 0.21	Very limited Slope Restricted permeability Depth to saturated zone	1.00 0.21 0.19	Very limited Slope Depth to saturated zone Restricted permeability	1.00 0.39 0.21

Table 16a.--Recreation--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
9087C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Depth to saturated zone	1.00
	Slope	0.84	Slope	0.84	Slope	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
Newot, very stony---	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	Slope	1.00	Slope	1.00	Slope	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
9088A:						
Newood, very stony--	Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
	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	0.16
Capitola, very stony	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	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
9089B:						
Newood, very stony--	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.96	Restricted permeability	0.96	Slope	1.00
	Too stony	0.50	Too stony	0.50	Restricted permeability	0.96
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
					Depth to saturated zone	0.39
					Gravel content	0.16
Lupton-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	1.00
	Gravel content	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Gravel content	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
9090C:						
Newood, very stony--	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.96	Restricted permeability	0.96	Slope	1.00
	Too stony	0.50	Too stony	0.50	Restricted permeability	0.96
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too stony	0.50
					Depth to saturated zone	0.39
					Gravel content	0.16

Table 16a.--Recreation--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
9090C:						
Newot, very stony---	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Slope	1.00
	Restricted	0.96	Restricted	0.96	Restricted	0.96
	permeability		permeability		permeability	
	Too stony	0.50	Too stony	0.50	Too stony	0.50
Lupton-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Gravel content	1.00
	saturated zone		saturated zone		Depth to	1.00
	Gravel content	1.00	Content of	1.00	saturated zone	
	Content of	1.00	organic matter		Content of	1.00
	organic matter		Gravel content	1.00	organic matter	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
9092D:						
Newot, very stony---	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Slope	1.00
	Restricted	0.96	Restricted	0.96	Restricted	0.96
	permeability		permeability		permeability	
	Too stony	0.50	Too stony	0.50	Too stony	0.50
9093C:						
Pence-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Content of large	0.01
					stones	
					Gravel content	0.01
Padus-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.02
9096C:						
Newot, very stony---	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Gravel content	1.00
	Gravel content	1.00	Gravel content	1.00	Slope	1.00
	Restricted	0.96	Restricted	0.96	Restricted	0.96
	permeability		permeability		permeability	
	Too stony	0.50	Too stony	0.50	Too stony	0.50
Pesabic, very stony	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Gravel content	1.00
	saturated zone		saturated zone		Depth to	1.00
	Gravel content	1.00	Gravel content	1.00	saturated zone	
	Restricted	0.96	Restricted	0.96	Restricted	0.96
	permeability		permeability		permeability	
	Too stony	0.50	Too stony	0.50	Too stony	0.50
Lupton-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Gravel content	1.00
	saturated zone		saturated zone		Depth to	1.00
	Gravel content	1.00	Content of	1.00	saturated zone	
	Content of	1.00	organic matter		Content of	1.00
	organic matter		Gravel content	1.00	organic matter	
	Ponding	1.00	Ponding	1.00	Ponding	1.00

Table 16a.--Recreation--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
9097B: Newood, very stony--	Somewhat limited Restricted permeability Too stony Depth to saturated zone	0.96 0.50 0.39	Somewhat limited Restricted permeability Too stony Depth to saturated zone	0.96 0.50 0.19	Very limited Slope Restricted permeability Too stony Depth to saturated zone Gravel content	1.00 0.96 0.50 0.39 0.16
Padus, very stony---	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Very limited Slope Too stony Gravel content	1.00 0.50 0.02
9098A: Oesterle-----	Very limited Depth to saturated zone Gravel content	1.00 1.00	Very limited Depth to saturated zone Gravel content	1.00 1.00	Very limited Gravel content Depth to saturated zone	1.00 1.00
9099B: Antigo-----	Very limited Gravel content	1.00	Very limited Gravel content	1.00	Very limited Gravel content Slope	1.00 1.00
9197C: Pelissier-----	Very limited Gravel content Slope	1.00 1.00	Very limited Gravel content Slope	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
M-W: Miscellaneous water	Not rated		Not rated		Not rated	
W: Water-----	Not rated		Not rated		Not rated	

Table 16b.--Recreation

(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
22A: Comstock-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
24A: Poskin-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
43B: Antigo-----	Not limited		Not limited		Not limited	
43C: Antigo-----	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Slope	0.37
43D: Antigo-----	Very limited Water erosion Slope	1.00 0.92	Very limited Water erosion	1.00	Very limited Slope	1.00
48B: Brill-----	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75
57B: Spencer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
59A: Almena-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
63B: Crystal Lake-----	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
63C: Crystal Lake-----	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Depth to saturated zone Slope	0.19 0.04
63D: Crystal Lake-----	Very limited Water erosion Slope	1.00 0.02	Very limited Water erosion	1.00	Very limited Slope	1.00

Table 16b.--Recreation--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
63E: Crystal Lake-----	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion Slope	1.00 0.08	Very limited Slope	1.00
77A: Auburndale-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
182B: Padus-----	Not limited		Not limited		Not limited	
182C: Padus-----	Not limited		Not limited		Somewhat limited Slope	0.37
182D: Padus-----	Somewhat limited Slope	0.92	Not limited		Very limited Slope	1.00
192A: Worcester-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
193A: Minocqua-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
215B: Pence-----	Not limited		Not limited		Somewhat limited Droughty Content of large stones	0.30 0.01
215C: Pence-----	Not limited		Not limited		Somewhat limited Slope Droughty Content of large stones	0.37 0.30 0.01
215D: Pence-----	Somewhat limited Slope	0.92	Not limited		Very limited Slope Droughty Content of large stones	1.00 0.30 0.01
308B: Blackriver-----	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75

Table 16b.--Recreation--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
315A: Rib-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
324A: Maplehurst-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
337A: Plover-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
345B: Freeon, very stony--	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone	1.00 1.00
Sconsin-----	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75
346E: Newot, very stony---	Very limited Gravel content Slope Too stony	1.00 1.00 0.50	Very limited Gravel content Too stony Slope	1.00 0.50 0.22	Very limited Slope Gravel content	1.00 1.00
Pence, very stony---	Very limited Slope Too stony	1.00 0.50	Somewhat limited Too stony Slope	0.50 0.22	Very limited Slope Droughty Content of large stones	1.00 0.30 0.01
355B: Loyal-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
355C: Loyal-----	Very limited Depth to saturated zone Water erosion	1.00 1.00	Very limited Depth to saturated zone Water erosion	1.00 1.00	Very limited Depth to saturated zone Slope	1.00 0.04
356A: Withee-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
357A: Marshfield-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00

Table 16b.--Recreation--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
408A:						
Lupton-----	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Content of organic matter	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	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	
	Gravel content	1.00	Gravel content	1.00	Content of organic matter	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	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
414A:						
Loxley-----	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Content of organic matter	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	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	
	Gravel content	1.00	Gravel content	1.00	Content of organic matter	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	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
457B:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	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
457C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	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		
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

Table 16b.--Recreation--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
515A: Manitowish-----	Not limited		Not limited		Somewhat limited Droughty Content of large stones	0.17 0.01
525B: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
Padwood-----	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
Tipler-----	Not limited		Not limited		Not limited	
527B: Padwood-----	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
537D: Newot, very stony---	Very limited Gravel content Slope Too stony	1.00 1.00 0.50	Very limited Gravel content Too stony	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Slope Depth to saturated zone Content of large stones	0.37 0.19 0.01
Cathro-----	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Content of organic matter Gravel content Depth to saturated zone Ponding	1.00 1.00 1.00 1.00
545C: Freeon, very stony--	Very limited Gravel content Depth to saturated zone Water erosion Too stony	1.00 1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Water erosion Too stony	1.00 1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Slope	1.00 1.00 0.37
Antigo-----	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Slope	0.37

Table 16b.--Recreation--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
555A: Fordum-----	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 1.00 0.40	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00 1.00
560A: Worwood-----	Very limited Gravel content Depth to saturated zone	1.00 1.00	Very limited Gravel content Depth to saturated zone	1.00 1.00	Very limited Gravel content Depth to saturated zone	1.00 1.00
571E: Pelissier-----	Very limited Gravel content Slope	1.00 1.00	Very limited Gravel content Slope	1.00 0.22	Very limited Slope Gravel content Droughty	1.00 1.00 0.79
612A: Magnor, very stony--	Very limited Depth to saturated zone Too stony	1.00 0.50	Very limited Depth to saturated zone Too stony	1.00 0.50	Very limited Depth to saturated zone Content of large stones	1.00 0.01
Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
623A: Capitola, very stony	Very limited Depth to saturated zone Ponding Too stony	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Too stony	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00
624A: Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
632B: Aftad-----	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
637B: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
637C: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Slope Depth to saturated zone Content of large stones	0.37 0.19 0.01

Table 16b.--Recreation--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
642B:						
Pesabic, very stony	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	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		
Capitola, very stony	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	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
	Too stony	0.50	Too stony	0.50		
Newood, 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	0.01
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
683A:						
Tipler-----	Not limited		Not limited		Not limited	
737D:						
Santiago, very stony	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Slope	1.00
	Slope	0.92	Too stony	0.50	Content of large stones	0.01
	Too stony	0.50				
748A:						
Brander-----	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
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
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	0.40	Flooding	0.40	Ponding	1.00
757B:						
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
Freeon, very stony--	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	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		

Table 16b.--Recreation--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
757B:						
Magnor-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Freeon-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Content of large stones	1.00 0.01
766A:						
Moppet-----	Not limited		Not limited		Somewhat limited Flooding	0.60
822A:						
Comstock-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Magnor, very stony--	Very limited Depth to saturated zone Too stony	1.00 0.50	Very limited Depth to saturated zone Too stony	1.00 0.50	Very limited Depth to saturated zone Content of large stones	1.00 0.01
Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
837E:						
Newot, very stony---	Very limited Gravel content Slope Too stony	1.00 1.00 0.50	Very limited Gravel content Too stony Slope	1.00 0.50 0.22	Very limited Slope Gravel content	1.00 1.00
848A:						
Ribriver-----	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75
863B:						
Crystal Lake-----	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
Freeon, very stony--	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone	1.00 1.00
Sconsin-----	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75

Table 16b.--Recreation--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
923A:						
Capitola, very stony	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	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
	Too stony	0.50	Too stony	0.50		
Cebana, 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
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Too stony	0.50	Too stony	0.50	Content of large stones	0.01
956B:						
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
957B:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	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		
957C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	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	0.37
	Too stony	0.50	Too stony	0.50		
2015:						
Pits-----	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
3456A:						
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

Table 16b.--Recreation--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
3525C: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Slope Depth to saturated zone Content of large stones	0.37 0.19 0.01
Padwood-----	Not limited		Not limited		Somewhat limited Slope Depth to saturated zone	0.37 0.19
Padus-----	Not limited		Not limited		Somewhat limited Slope	0.37
3546C: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Slope Depth to saturated zone Content of large stones	0.37 0.19 0.01
Pence, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Slope Droughty Content of large stones	0.37 0.30 0.01
3556C: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Slope Depth to saturated zone Content of large stones	0.37 0.19 0.01
Magnor, very stony--	Very limited Depth to saturated zone Too stony	1.00 0.50	Very limited Depth to saturated zone Too stony	1.00 0.50	Very limited Depth to saturated zone Content of large stones	1.00 0.01
Cathro-----	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Content of organic matter Gravel content Depth to saturated zone Ponding	1.00 1.00 1.00 1.00
3561A: Pesabic, very stony	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone	1.00 1.00

Table 16b.--Recreation--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
3561A:						
Worwood-----	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Worcester-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
3569C:						
Newood, 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	0.01
Pesabic, very stony	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	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		
Cathro-----	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Content of organic matter	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Gravel content	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
3666B:						
Pesabic, very stony	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	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		
3863C:						
Crystal Lake-----	Very limited		Very limited		Somewhat limited	
	Water erosion	1.00	Water erosion	1.00	Slope	0.37
					Depth to saturated zone	0.19
Freeon, very stony--	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	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	0.37
	Too stony	0.50	Too stony	0.50		
Antigo-----	Very limited		Very limited		Somewhat limited	
	Water erosion	1.00	Water erosion	1.00	Slope	0.37

Table 16b.--Recreation--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
9052A:						
Cathro-----	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Content of	1.00
	Depth to	1.00	Depth to	1.00	organic matter	
	saturated zone		saturated zone		Gravel content	1.00
	Content of	1.00	Content of	1.00	Depth to	1.00
	organic matter		organic matter		saturated zone	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Capitola, very stony	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Too stony	0.50	Too stony	0.50		
Lupton-----	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Content of	1.00
	Depth to	1.00	Depth to	1.00	organic matter	
	saturated zone		saturated zone		Gravel content	1.00
	Content of	1.00	Content of	1.00	Depth to	1.00
	organic matter		organic matter		saturated zone	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
9055A:						
Loxley-----	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Content of	1.00
	Depth to	1.00	Depth to	1.00	organic matter	
	saturated zone		saturated zone		Gravel content	1.00
	Content of	1.00	Content of	1.00	Depth to	1.00
	organic matter		organic matter		saturated zone	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
9060D:						
Pelissier-----	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Slope	1.00
	Slope	1.00	Slope	0.56	Gravel content	1.00
					Droughty	0.79
9071B:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Too stony	0.50	Too stony	0.50		
9077C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Water erosion	1.00	Water erosion	1.00	Slope	1.00
	Too stony	0.50	Too stony	0.50		
9078A:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Too stony	0.50	Too stony	0.50		

Table 16b.--Recreation--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
9078A: Magnor, very stony--	Very limited Depth to saturated zone Too stony	1.00 0.50	Very limited Depth to saturated zone Too stony	1.00 0.50	Very limited Depth to saturated zone Content of large stones	1.00 0.01
Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
9081C: Newot, very stony--	Very limited Gravel content Slope Too stony	1.00 0.50 0.50	Very limited Gravel content Too stony	1.00 0.50	Very limited Gravel content Slope	1.00 1.00
9082B: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
9083A: Crystal Lake-----	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
9083B: Crystal Lake-----	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
9086A: Freeon, very stony--	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone	1.00 1.00
9087C: Crystal Lake-----	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Very limited Slope Depth to saturated zone	1.00 0.19
Freeon, very stony--	Very limited Gravel content Depth to saturated zone Water erosion Too stony	1.00 1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Water erosion Too stony	1.00 1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Slope	1.00 1.00 0.84
Newot, very stony--	Very limited Gravel content Too stony	1.00 0.50	Very limited Gravel content Too stony	1.00 0.50	Very limited Gravel content Slope	1.00 1.00

Table 16b.--Recreation--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
9088A: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
Capitola, very stony	Very limited Gravel content Depth to saturated zone Ponding Too stony	1.00 1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Ponding Too stony	1.00 1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Ponding	1.00 1.00 1.00
9089B: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
Lupton-----	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Content of organic matter Gravel content Depth to saturated zone Ponding	1.00 1.00 1.00 1.00
9090C: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
Newot, very stony---	Very limited Gravel content Slope Too stony	1.00 0.92 0.50	Very limited Gravel content Too stony	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
Lupton-----	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Content of organic matter Gravel content Depth to saturated zone Ponding	1.00 1.00 1.00 1.00
9092D: Newot, very stony---	Very limited Gravel content Slope Too stony	1.00 1.00 0.50	Very limited Gravel content Slope Too stony	1.00 0.56 0.50	Very limited Slope Gravel content	1.00 1.00
9093C: Pence-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope Droughty Content of large stones	1.00 0.30 0.01

Table 16b.--Recreation--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
9093C: Padus-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
9096C: Newot, very stony---	Very limited Gravel content Slope Too stony	1.00 0.92 0.50	Very limited Gravel content Too stony	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
Pesabic, very stony	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone Too stony	1.00 1.00 0.50	Very limited Gravel content Depth to saturated zone	1.00 1.00
Lupton-----	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Gravel content Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Content of organic matter Gravel content Depth to saturated zone Ponding	1.00 1.00 1.00 1.00
9097B: Newood, very stony--	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
Padus, very stony---	Somewhat limited Too stony	0.50	Somewhat limited Too stony	0.50	Not limited	
9098A: Oesterle-----	Very limited Gravel content Depth to saturated zone	1.00 1.00	Very limited Gravel content Depth to saturated zone	1.00 1.00	Very limited Gravel content Depth to saturated zone	1.00 1.00
9099B: Antigo-----	Very limited Gravel content	1.00	Very limited Gravel content	1.00	Very limited Gravel content	1.00
9197C: Pelissier-----	Very limited Gravel content Slope	1.00 0.50	Very limited Gravel content	1.00	Very limited Gravel content Slope Droughty	1.00 1.00 0.59
M-W: Miscellaneous water	Not rated		Not rated		Not rated	
W: Water-----	Not rated		Not rated		Not rated	

Table 17.--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 herba- ceous plants	Hard- wood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life
22A: Comstock-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
24A: Poskin-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
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
43D: Antigo-----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
48B: Brill-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
57B: Spencer-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
59A: Almena-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
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
63D: Crystal Lake-----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
63E: Crystal Lake-----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
77A: Auburndale-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
182B: Padus-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
182C: Padus-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 17.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life
182D: Padus-----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
192A: Worcester-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
193A: Minocqua-----	Very poor	Fair	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
215B: Pence-----	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
215C: Pence-----	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
215D: Pence-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
308B: Blackriver-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
315A: Rib-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
324A: Maplehurst-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
337A: Plover-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
345B: Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Sconsin-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
346E: Newot, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Pence, very stony-----	Very poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
355B: Loyal-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
355C: Loyal-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
356A: Withee-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair

Table 17.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life
357A: Marshfield-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
408A: Lupton-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Cathro-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
414A: Loxley-----	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Beseman-----	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
457B: 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
457C: 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
515A: Manitowish-----	Fair	Fair	Good	Good	Good	Poor	Poor	Fair	Good	Poor
525B: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Padwood-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Tipler-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
527B: Padwood-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
537D: Newot, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Cathro-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
545C: Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Antigo-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 17.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life
555A: Fordum-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
560A: Worwood-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
571E: Pelissier-----	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
612A: Magnor, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Ossmer-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Fair	Poor
623A: Capitola, very stony----	Very poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
624A: Ossmer-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
632B: Aftad-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
637B: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
637C: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
642B: Pesabic, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Capitola, very stony----	Very poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
Newood, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
648B: Sconsin-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
683A: Tipler-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
737D: Santiago, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
748A: Brander-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor

Table 17.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life
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
757B: Magnor, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Magnor-----	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Freeon-----	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
766A: Moppet-----	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
822A: Comstock-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
Magnor, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Ossmer-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
837E: Newot, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
848A: Ribriver-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
863B: Crystal Lake-----	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Sconsin-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
923A: Capitola, very stony----	Very poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
Cebana, very stony-----	Very poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
956B: Magnor, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
957B: Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor

Table 17.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life
957C: Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
2015. Pits										
3011A: Barronett-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
3456A: 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
3525C: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Padwood-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Padus-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
3546C: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Pence, very stony-----	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
3556C: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Magnor, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Cathro-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
3561A: Pesabic, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Worwood-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
Worcester-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
3569C: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Pesabic, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Cathro-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good

Table 17.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life
3666B: Pesabic, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
3863C: Crystal Lake-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Antigo-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
9052A: Cathro-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
Capitola, very stony----	Very poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
Lupton-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
9055A: Loxley-----	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
9060D: Pelissier-----	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
9071B: Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
9077C: Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
9078A: Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Magnor, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Ossmer-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
9081C: Newot, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
9082B: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
9083A: Crystal Lake-----	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
9083B: Crystal Lake-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 17.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life
9086A: Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
9087C: Crystal Lake-----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Freeon, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Newot, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
9088A: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Capitola, very stony----	Very poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
9089B: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Lupton-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
9090C: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Newot, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Lupton-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
9092D: Newot, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
9093C: Pence-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Padus-----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
9096C: Newot, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Pesabic, very stony----	Very poor	Poor	Good	Good	Good	Poor	Poor	Poor	Good	Poor
Lupton-----	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
9097B: Newood, very stony-----	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Padus, very stony-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 18a.--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
22A: Comstock-----	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
24A: Poskin-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
43B: Antigo-----	Not limited		Not limited		Not limited	
43C: Antigo-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
43D: Antigo-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
48B: Brill-----	Somewhat limited Depth to saturated zone	0.98	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.98
57B: Spencer-----	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
59A: Almena-----	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
63B: Crystal Lake-----	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39
63C: Crystal Lake-----	Somewhat limited Shrink-swell Depth to saturated zone Slope	0.50 0.39 0.04	Very limited Depth to saturated zone Slope	1.00 0.04	Very limited Slope Shrink-swell Depth to saturated zone	1.00 0.50 0.39

Table 18a.--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
63D: Crystal Lake-----	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Slope Shrink-swell	1.00 0.50
63E: Crystal Lake-----	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Slope Shrink-swell	1.00 0.50
77A: Auburndale-----	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50
182B: Padus-----	Not limited		Not limited		Not limited	
182C: Padus-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
182D: Padus-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
192A: Worcester-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
193A: Minocqua-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
215B: Pence-----	Not limited		Not limited		Not limited	
215C: Pence-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
215D: Pence-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
308B: Blackriver-----	Somewhat limited Depth to saturated zone	0.98	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.98

Table 18a.--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
315A: Rib-----	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50
324A: Maplehurst-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
337A: Plover-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
345B: Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Sconsin-----	Somewhat limited Depth to saturated zone	0.98	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.98
346E: Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Pence, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
355B: Loyal-----	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
355C: Loyal-----	Very limited Depth to saturated zone Shrink-swell Slope	1.00 0.50 0.04	Very limited Depth to saturated zone Shrink-swell Slope	1.00 0.50 0.04	Very limited Depth to saturated zone Slope Shrink-swell	1.00 1.00 0.50
356A: Withee-----	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
357A: Marshfield-----	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50

Table 18a.--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
408A:						
Lupton-----	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
414A:						
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
457B:						
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
457C:						
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
515A:						
Manitowish-----	Not limited		Very limited		Not limited	
			Depth to saturated zone	1.00		

Table 18a.--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
525B: Newood, very stony--	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.39
Padwood-----	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.39
Tipler-----	Not limited		Very limited Depth to saturated zone	1.00	Not limited	
527B: Padwood-----	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.39
537D: Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Newood, very stony--	Somewhat limited Depth to saturated zone Slope	0.39 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Slope Depth to saturated zone	1.00 0.39
Cathro-----	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00
545C: Freeon, very stony--	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 1.00
Antigo-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
555A: Fordum-----	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
560A: Worwood-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
571E: Pelissier-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

Table 18a.--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
612A: Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
623A: Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
624A: Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
632B: Aftad-----	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.39
637B: Newood, very stony--	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.39
637C: Newood, very stony--	Somewhat limited Depth to saturated zone Slope	0.39 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Slope Depth to saturated zone	1.00 0.39
642B: Pesabic, very stony	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
Newood, very stony--	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.39
648B: Sconsin-----	Somewhat limited Depth to saturated zone	0.98	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.98
683A: Tipler-----	Not limited		Very limited Depth to saturated zone	1.00	Not limited	

Table 18a.--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
737D: Santiago, very stony	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
748A: Brander-----	Somewhat limited Depth to saturated zone	0.98	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.98
755A: Moppet-----	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding	1.00
Fordum-----	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
757B: Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Magnor-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Freeon-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
766A: Moppet-----	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding	1.00
822A: Comstock-----	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

Table 18a.--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
837E: Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
848A: Ribriver-----	Somewhat limited Depth to saturated zone	0.98	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.98
863B: Crystal Lake-----	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39
Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Sconsin-----	Somewhat limited Depth to saturated zone	0.98	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.98
923A: Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
Cebana, very stony--	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
956B: Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
957B: Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
957C: Freeon, very stony--	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 1.00
2015: Pits-----	Not rated		Not rated		Not rated	
3011A: Barronett-----	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Shrink-swell	1.00 1.00 0.50

Table 18a.--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
3456A: Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Magnor-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
3525C: Newood, very stony--	Somewhat limited Depth to saturated zone Slope	0.39 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Slope Depth to saturated zone	1.00 0.39
Padwood-----	Somewhat limited Depth to saturated zone Slope	0.39 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Slope Depth to saturated zone	1.00 0.39
Padus-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
3546C: Newood, very stony--	Somewhat limited Depth to saturated zone Slope	0.39 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Slope Depth to saturated zone	1.00 0.39
Pence, very stony---	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
3556C: Newood, very stony--	Somewhat limited Depth to saturated zone Slope	0.39 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Slope Depth to saturated zone	1.00 0.39
Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Cathro-----	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00
3561A: Pesabic, very stony	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Worwood-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

Table 18a.--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
3561A: Worcester-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
3569C: Newood, very stony--	Somewhat limited Depth to saturated zone Slope	0.39 0.04	Very limited Depth to saturated zone Slope	1.00 0.04	Very limited Slope Depth to saturated zone	1.00 0.39
Pesabic, very stony	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Cathro-----	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00
3666B: Pesabic, very stony	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
3863C: Crystal Lake-----	Somewhat limited Shrink-swell Depth to saturated zone Slope	0.50 0.39 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Slope Shrink-swell Depth to saturated zone	1.00 0.50 0.39
Freeon, very stony--	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 1.00
Antigo-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
9052A: Cathro-----	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00
Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00

Table 18a.--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
9052A: Lupton-----	Very limited Subsidence	1.00	Very limited Subsidence	1.00	Very limited 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
9055A: Loxley-----	Very limited Subsidence	1.00	Very limited Subsidence	1.00	Very limited 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
9060D: Pelissier-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
9071B: Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Slope	1.00 1.00
9077C: Freeon, very stony--	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Slope Depth to saturated zone	1.00 1.00
9078A: Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Ossmer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
9081C: Newot, very stony--	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
9082B: Newood, very stony--	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Very limited Slope Depth to saturated zone	1.00 0.39

Table 18a.--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
9083A: Crystal Lake-----	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39
9083B: Crystal Lake-----	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39	Very limited Depth to saturated zone	1.00	Very limited Slope Shrink-swell Depth to saturated zone	1.00 0.50 0.39
9086A: Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
9087C: Crystal Lake-----	Very limited Slope Shrink-swell Depth to saturated zone	1.00 0.50 0.39	Very limited Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope Shrink-swell Depth to saturated zone	1.00 0.50 0.39
Freeon, very stony--	Very limited Depth to saturated zone Slope	1.00 0.84	Very limited Depth to saturated zone Slope	1.00 0.84	Very limited Slope Depth to saturated zone	1.00 1.00
Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
9088A: Newood, very stony--	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.39
Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
9089B: Newood, very stony--	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Somewhat limited Slope Depth to saturated zone	0.50 0.39
Lupton-----	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00

Table 18a.--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
9090C: Newood, very stony--	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Very limited Slope Depth to saturated zone	1.00 0.39
Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Lupton-----	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00
9092D: Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
9093C: Pence-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Padus-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
9096C: Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Pesabic, very stony	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Lupton-----	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00 1.00
9097B: Newood, very stony--	Somewhat limited Depth to saturated zone	0.39	Very limited Depth to saturated zone	1.00	Very limited Slope Depth to saturated zone	1.00 0.39
Padus, very stony---	Not limited		Not limited		Very limited Slope	1.00
9098A: Oesterle-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

Table 18a.--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
9099B: Antigo-----	Not limited		Not limited		Very limited Slope	1.00
9197C: Pelissier-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
M-W: Miscellaneous water	Not rated		Not rated		Not rated	
W: Water-----	Not rated		Not rated		Not rated	

Table 18b.--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
22A: Comstock-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
	Shrink-swell	0.50				
24A: Poskin-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
43B: Antigo-----	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Not limited	
43C: Antigo-----	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Slope	0.37
	Slope	0.37	Slope	0.37		
43D: Antigo-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
	Frost action	0.50	Cutbanks cave	1.00		
48B: Brill-----	Very limited Frost action	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.75
	Low strength	0.78	Cutbanks cave	1.00		
	Depth to saturated zone	0.75				
57B: Spencer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
	Frost action	1.00	Depth to dense layer	0.50		
	Low strength	1.00	Cutbanks cave	0.10		
	Shrink-swell	0.50				
59A: Almena-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
	Frost action	1.00	Depth to dense layer	0.50		
	Low strength	1.00	Cutbanks cave	0.10		
	Shrink-swell	0.50				

Table 18b.--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
63B: Crystal Lake-----	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to	1.00	Depth to	0.19
	Low strength	1.00	saturated zone		saturated zone	
	Shrink-swell	0.50	Cutbanks cave	1.00		
	Depth to	0.19				
	saturated zone					
63C: Crystal Lake-----	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to	1.00	Depth to	0.19
	Low strength	1.00	saturated zone		saturated zone	
	Shrink-swell	0.50	Cutbanks cave	1.00	Slope	0.04
	Depth to	0.19	Slope	0.04		
	saturated zone					
	Slope	0.04				
63D: Crystal Lake-----	Very limited		Very limited		Very limited	
	Frost action	1.00	Cutbanks cave	1.00	Slope	1.00
	Slope	1.00	Slope	1.00		
	Low strength	1.00	Depth to	1.00		
	Shrink-swell	0.50	saturated zone			
63E: Crystal Lake-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00	Depth to	1.00		
	Shrink-swell	0.50	saturated zone			
77A: Auburndale-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Frost action	1.00	Ponding	1.00	Ponding	1.00
	Low strength	1.00	Depth to dense	0.50		
	Ponding	1.00	layer			
	Shrink-swell	0.50	Cutbanks cave	0.10		
182B: Padus-----	Somewhat limited		Very limited		Not limited	
	Frost action	0.50	Cutbanks cave	1.00		
182C: Padus-----	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Slope	0.37
	Slope	0.37	Slope	0.37		
182D: Padus-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	1.00		
192A: Worcester-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Frost action	1.00	Cutbanks cave	1.00		

Table 18b.--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
193A: Minocqua-----	Very limited Depth to saturated zone Frost action Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Ponding	1.00 1.00 1.00	Not rated	
215B: Pence-----	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty Content of large stones	0.30 0.01
215C: Pence-----	Somewhat limited Slope	0.37	Very limited Cutbanks cave Slope	1.00 0.37	Somewhat limited Slope Droughty Content of large stones	0.37 0.30 0.01
215D: Pence-----	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Droughty Content of large stones	1.00 0.30 0.01
308B: Blackriver-----	Very limited Frost action Low strength Depth to saturated zone	1.00 1.00 0.75	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.75
315A: Rib-----	Very limited Depth to saturated zone Frost action Low strength Ponding Shrink-swell	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
324A: Maplehurst-----	Very limited Depth to saturated zone Frost action Low strength	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Very limited Depth to saturated zone	1.00
337A: Plover-----	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Very limited Depth to saturated zone	1.00

Table 18b.--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
345B: Freeon, very stony--	Very limited Depth to saturated zone Frost action	1.00 0.50	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Not rated	
Sconsin-----	Somewhat limited Depth to saturated zone Frost action	0.75 0.50	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.75
346E: Newot, very stony--	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to dense layer	1.00 1.00 0.50	Not rated	
Pence, very stony--	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Droughty Content of large stones	1.00 0.30 0.01
355B: Loyal-----	Very limited Depth to saturated zone Shrink-swell Frost action	1.00 0.50 0.50	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone	1.00
355C: Loyal-----	Very limited Depth to saturated zone Shrink-swell Frost action Slope	1.00 0.50 0.50 0.04	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave Slope	1.00 0.50 0.10 0.04	Very limited Depth to saturated zone Slope	1.00 0.04
356A: Withee-----	Very limited Depth to saturated zone Frost action Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone	1.00
357A: Marshfield-----	Very limited Depth to saturated zone Frost action Low strength Ponding Shrink-swell	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Depth to dense layer Cutbanks cave	1.00 1.00 0.50 0.10	Very limited Depth to saturated zone Ponding	1.00 1.00

Table 18b.--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
408A:						
Lupton-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Content of organic matter	1.00		
	Frost action	1.00	Ponding	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
Cathro-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Ponding	1.00		
	Frost action	1.00	Content of organic matter	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
414A:						
Loxley-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Content of organic matter	1.00		
	Frost action	1.00	Ponding	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
Beseman-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	1.00	Ponding	1.00		
	Subsidence	1.00	Content of organic matter	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
457B:						
Freeon, very stony--	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	0.50	Depth to 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	Depth to dense layer	0.50	Content of large stones	0.01
			Cutbanks cave	0.10		
457C:						
Freeon, very stony--	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	0.50	Depth to dense layer	0.50		
	Slope	0.04	Cutbanks cave	0.10		
			Slope	0.04		

Table 18b.--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
457C: 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	Depth to dense layer	0.50	Slope	0.04
	Slope	0.04	Cutbanks cave	0.10	Content of large stones	0.01
			Slope	0.04		
515A: Manitowish-----	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.17
			Depth to saturated zone	1.00	Content of large stones	0.01
525B: Newood, 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	0.01
			Depth to dense layer	0.50		
Padwood-----	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		
Tipler-----	Somewhat limited		Very limited		Not limited	
	Frost action	0.50	Cutbanks cave	1.00		
			Depth to saturated zone	1.00		
527B: Padwood-----	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		
537D: Newot, very stony--	Very limited		Very limited		Not rated	
	Slope	1.00	Slope	1.00		
	Frost action	0.50	Cutbanks cave	1.00		
			Depth to dense layer	0.50		
Newood, very stony--	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Slope	0.37
	Slope	0.37	Cutbanks cave	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Depth to dense layer	0.50	Content of large stones	0.01
			Slope	0.37		
Cathro-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Ponding	1.00		
	Frost action	1.00	Content of organic matter	1.00		
	Ponding	1.00	Cutbanks cave	0.10		

Table 18b.--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
545C: Freeon, very stony--	Very limited Depth to saturated zone Frost action Slope	1.00 0.50 0.37	Very limited Depth to saturated zone Depth to dense layer Slope Cutbanks cave	1.00 0.50 0.37 0.10	Not rated	
Antigo-----	Somewhat limited Frost action Slope	0.50 0.37	Very limited Cutbanks cave Slope	1.00 0.37	Somewhat limited Slope	0.37
555A: Fordum-----	Very limited Depth to saturated zone Frost action Flooding Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Ponding Flooding	1.00 1.00 1.00 0.80	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
560A: Worwood-----	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Not rated	
571E: Pelissier-----	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00	Not rated	
612A: Magnor, very stony--	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone Content of large stones	1.00 0.01
Ossmer-----	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Very limited Depth to saturated zone	1.00
623A: Capitola, very stony	Very limited Depth to saturated zone Frost action Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Depth to dense layer Cutbanks cave	1.00 1.00 0.50 0.10	Not rated	
624A: Ossmer-----	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Very limited Depth to saturated zone	1.00

Table 18b.--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
632B: Aftad-----	Somewhat limited Frost action Depth to saturated zone	0.50 0.19	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.19
637B: Newood, very stony--	Somewhat limited Frost action Depth to saturated zone	0.50 0.19	Very limited Depth to saturated zone Cutbanks cave Depth to dense layer	1.00 1.00 0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
637C: Newood, very stony--	Somewhat limited Frost action Slope Depth to saturated zone	0.50 0.37 0.19	Very limited Depth to saturated zone Cutbanks cave Depth to dense layer Slope	1.00 1.00 1.00 0.50 0.37	Somewhat limited Slope Depth to saturated zone Content of large stones	0.37 0.19 0.01
642B: Pesabic, very stony	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Depth to dense layer	1.00 1.00 1.00 0.50	Not rated	
Capitola, very stony	Very limited Depth to saturated zone Frost action Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Depth to dense layer Cutbanks cave	1.00 1.00 1.00 0.50 0.10	Not rated	
Newood, very stony--	Somewhat limited Frost action Depth to saturated zone	0.50 0.19	Very limited Depth to saturated zone Cutbanks cave Depth to dense layer	1.00 1.00 1.00 0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
648B: Sconsin-----	Somewhat limited Depth to saturated zone Frost action	0.75 0.50	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.75
683A: Tipler-----	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to saturated zone	1.00 1.00	Not limited	

Table 18b.--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
737D: Santiago, very stony	Very limited Slope Frost action	1.00 0.50	Very limited Slope Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Slope Content of large stones	1.00 0.01
748A: Brander-----	Very limited Frost action Low strength Depth to saturated zone	1.00 1.00 0.75	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.75
755A: Moppet-----	Very limited Flooding Frost action	1.00 0.50	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 1.00 0.60	Somewhat limited Flooding	0.60
Fordum-----	Very limited Depth to saturated zone Frost action Flooding Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Ponding Flooding	1.00 1.00 1.00 0.80	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
757B: Magnor, very stony--	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone Content of large stones	1.00 0.01
Freeon, very stony--	Very limited Depth to saturated zone Frost action	1.00 0.50	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Not rated	
Magnor-----	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone	1.00
Freeon-----	Very limited Depth to saturated zone Frost action	1.00 0.50	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone Content of large stones	1.00 0.01

Table 18b.--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
766A: Moppet-----	Very limited Flooding Frost action	1.00 0.50	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 1.00 0.60	Somewhat limited Flooding	0.60
822A: Comstock-----	Very limited Depth to saturated zone Frost action Low strength Shrink-swell	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00 1.00	Very limited Depth to saturated zone	1.00
Magnor, very stony--	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone Content of large stones	1.00 0.01
Ossmer-----	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Very limited Depth to saturated zone	1.00
837E: Newot, very stony--	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to dense layer	1.00 1.00 0.50	Not rated	
848A: Ribriver-----	Very limited Frost action Low strength Depth to saturated zone	1.00 1.00 0.75	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.75
863B: Crystal Lake-----	Very limited Frost action Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.50 0.19	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.19
Freeon, very stony--	Very limited Depth to saturated zone Frost action	1.00 0.50	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Not rated	
Sconsin-----	Somewhat limited Depth to saturated zone Frost action	0.75 0.50	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.75

Table 18b.--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
923A: Capitola, very stony	Very limited Depth to saturated zone Frost action Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Depth to dense layer Cutbanks cave	1.00 1.00 0.50 0.10	Not rated	
Cebana, very stony--	Very limited Depth to saturated zone Frost action Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Depth to dense layer Cutbanks cave	1.00 1.00 0.50 0.10	Very limited Depth to saturated zone Ponding Content of large stones	1.00 1.00 0.01
956B: Magnor, very stony--	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone Content of large stones	1.00 0.01
957B: Freeon, very stony--	Very limited Depth to saturated zone Frost action	1.00 0.50	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Not rated	
957C: Freeon, very stony--	Very limited Depth to saturated zone Frost action Slope	1.00 0.50 0.37	Very limited Depth to saturated zone Depth to dense layer Slope Cutbanks cave	1.00 0.50 0.37 0.10	Not rated	
2015: Pits-----	Not rated		Not rated		Not rated	
3011A: Barronett-----	Very limited Depth to saturated zone Frost action Low strength Ponding Shrink-swell	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
3456A: Magnor, very stony--	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone Content of large stones	1.00 0.01

Table 18b.--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
3456A: 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	1.00	Depth to dense layer	0.50		
			Cutbanks cave	0.10		
3525C: Newood, very stony--	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Slope	0.37
	Slope	0.37	Cutbanks cave	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Depth to dense layer	0.50	Content of large stones	0.01
			Slope	0.37		
Padwood-----	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Slope	0.37
	Slope	0.37	Cutbanks cave	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Slope	0.37		
Padus-----	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Slope	0.37
	Slope	0.37	Slope	0.37		
3546C: Newood, very stony--	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Slope	0.37
	Slope	0.37	Cutbanks cave	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Depth to dense layer	0.50	Content of large stones	0.01
			Slope	0.37		
Pence, very stony---	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.37	Cutbanks cave	1.00	Slope	0.37
			Slope	0.37	Droughty	0.30
					Content of large stones	0.01
3556C: Newood, very stony--	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to saturated zone	1.00	Slope	0.37
	Slope	0.37	Cutbanks cave	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Depth to dense layer	0.50	Content of large stones	0.01
			Slope	0.37		
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	1.00	Depth to dense layer	0.50	Content of large stones	0.01
			Cutbanks cave	0.10		

Table 18b.--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
3556C:						
Cathro-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Ponding	1.00		
	Frost action	1.00	Content of organic matter	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
3561A:						
Pesabic, very stony	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	1.00	Cutbanks cave	1.00		
			Depth to dense layer	0.50		
Worwood-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	1.00	Cutbanks cave	1.00		
Worcester-----	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		
3569C:						
Newood, 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	Depth to dense layer	0.50	Content of large stones	0.01
			Slope	0.04		
Pesabic, very stony	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	1.00	Cutbanks cave	1.00		
			Depth to dense layer	0.50		
Cathro-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Ponding	1.00		
	Frost action	1.00	Content of organic matter	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
3666B:						
Pesabic, very stony	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	1.00	Cutbanks cave	1.00		
			Depth to dense layer	0.50		

Table 18b.--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
3863C:						
Crystal Lake-----	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to	1.00	Slope	0.37
	Low strength	1.00	saturated zone		Depth to	0.19
	Shrink-swell	0.50	Cutbanks cave	1.00	saturated zone	
	Slope	0.38	Slope	0.37		
	Depth to saturated zone	0.19				
Freeon, very stony--	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	0.50	Depth to dense layer	0.50		
	Slope	0.37	Cutbanks cave	0.10		
Antigo-----	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Cutbanks cave	1.00	Slope	0.37
	Slope	0.37	Slope	0.37		
9052A:						
Cathro-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Ponding	1.00		
	Frost action	1.00	Content of organic matter	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
Capitola, very stony	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	1.00	Ponding	1.00		
	Ponding	1.00	Depth to dense layer	0.50		
			Cutbanks cave	0.10		
Lupton-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Content of organic matter	1.00		
	Frost action	1.00	Ponding	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
9055A:						
Loxley-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Content of organic matter	1.00		
	Frost action	1.00	Ponding	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
9060D:						
Pelissier-----	Very limited		Very limited		Not rated	
	Slope	1.00	Slope	1.00		
			Cutbanks cave	1.00		

Table 18b.--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
9071B: Freeon, very stony--	Very limited Depth to saturated zone Frost action	1.00 0.50	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Not rated	
9077C: Freeon, very stony--	Very limited Depth to saturated zone Slope Frost action	1.00 1.00 0.50	Very limited Depth to saturated zone Slope Depth to dense layer Cutbanks cave	1.00 1.00 0.50 0.10	Not rated	
9078A: Freeon, very stony--	Very limited Depth to saturated zone Frost action	1.00 0.50	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Not rated	
Magnor, very stony--	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone Content of large stones	1.00 0.01
Ossmer-----	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Very limited Depth to saturated zone	1.00
9081C: Newot, very stony--	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope Depth to dense layer	1.00 1.00 0.50	Not rated	
9082B: Newood, very stony--	Somewhat limited Frost action Depth to saturated zone	0.50 0.19	Very limited Depth to saturated zone Cutbanks cave Depth to dense layer	1.00 1.00 0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
9083A: Crystal Lake-----	Very limited Frost action Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.50 0.19	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.19

Table 18b.--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
9083B: Crystal Lake-----	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to	1.00	Depth to	0.19
	Low strength	1.00	saturated zone		saturated zone	
	Shrink-swell	0.50	Cutbanks cave	1.00		
	Depth to	0.19				
	saturated zone					
9086A: Freeon, very stony--	Very limited		Very limited		Not rated	
	Depth to	1.00	Depth to	1.00		
	saturated zone		saturated zone			
	Frost action	0.50	Depth to dense	0.50		
			layer			
			Cutbanks cave	0.10		
9087C: Crystal Lake-----	Very limited		Very limited		Very limited	
	Frost action	1.00	Depth to	1.00	Slope	1.00
	Low strength	1.00	saturated zone		Depth to	0.19
	Slope	1.00	Cutbanks cave	1.00	saturated zone	
	Shrink-swell	0.50	Slope	1.00		
	Depth to	0.19				
	saturated zone					
Freeon, very stony--	Very limited		Very limited		Not rated	
	Depth to	1.00	Depth to	1.00		
	saturated zone		saturated zone			
	Slope	0.84	Slope	0.84		
	Frost action	0.50	Depth to dense	0.50		
			layer			
			Cutbanks cave	0.10		
Newot, very stony---	Very limited		Very limited		Not rated	
	Slope	1.00	Cutbanks cave	1.00		
	Frost action	0.50	Slope	1.00		
			Depth to dense	0.50		
			layer			
9088A: Newood, very stony--	Somewhat limited		Very limited		Somewhat limited	
	Frost action	0.50	Depth to	1.00	Depth to	0.19
	Depth to	0.19	saturated zone		saturated zone	
	saturated zone		Cutbanks cave	1.00	Content of large	0.01
			Depth to dense	0.50	stones	
			layer			
Capitola, very stony	Very limited		Very limited		Not rated	
	Depth to	1.00	Depth to	1.00		
	saturated zone		saturated zone			
	Frost action	1.00	Ponding	1.00		
	Ponding	1.00	Depth to dense	0.50		
			layer			
			Cutbanks cave	0.10		

Table 18b.--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
9089B: Newood, very stony--	Somewhat limited Frost action Depth to saturated zone	0.50 0.19	Very limited Depth to saturated zone Cutbanks cave Depth to dense layer	1.00 1.00 1.00 0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
Lupton-----	Very limited Depth to saturated zone Subsidence Frost action Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding Cutbanks cave	1.00 1.00 1.00 1.00 0.10	Not rated	
9090C: Newood, very stony--	Somewhat limited Frost action Depth to saturated zone	0.50 0.19	Very limited Depth to saturated zone Cutbanks cave Depth to dense layer	1.00 1.00 1.00 0.50	Somewhat limited Depth to saturated zone Content of large stones	0.19 0.01
Newot, very stony--	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to dense layer	1.00 1.00 1.00 0.50	Not rated	
Lupton-----	Very limited Depth to saturated zone Subsidence Frost action Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding Cutbanks cave	1.00 1.00 1.00 1.00 0.10	Not rated	
9092D: Newot, very stony--	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to dense layer	1.00 1.00 1.00 0.50	Not rated	
9093C: Pence-----	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Droughty Content of large stones	1.00 0.30 0.01
Padus-----	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope	1.00

Table 18b.--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
9096C:						
Newot, very stony---	Very limited		Very limited		Not rated	
	Slope	1.00	Slope	1.00		
	Frost action	0.50	Cutbanks cave	1.00		
			Depth to dense layer	0.50		
Pesabic, very stony	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	1.00	Cutbanks cave	1.00		
			Depth to dense layer	0.50		
Lupton-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Subsidence	1.00	Content of organic matter	1.00		
	Frost action	1.00	Ponding	1.00		
	Ponding	1.00	Cutbanks cave	0.10		
9097B:						
Newood, 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	0.01
			Depth to dense layer	0.50		
Padus, very stony---	Somewhat limited		Very limited		Not limited	
	Frost action	0.50	Cutbanks cave	1.00		
9098A:						
Oesterle-----	Very limited		Very limited		Not rated	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Frost action	1.00	Cutbanks cave	1.00		
9099B:						
Antigo-----	Somewhat limited		Very limited		Not rated	
	Frost action	0.50	Cutbanks cave	1.00		
9197C:						
Pelissier-----	Very limited		Very limited		Not rated	
	Slope	1.00	Cutbanks cave	1.00		
			Slope	1.00		
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water-----	Not rated		Not rated		Not rated	

Table 19a.--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
22A: Comstock-----	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage	0.53
24A: Poskin-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.46	Very limited Seepage Depth to saturated zone	1.00 1.00
43B: Antigo-----	Very limited Filtering capacity Restricted permeability	1.00 0.46	Very limited Seepage Slope	1.00 0.32
43C: Antigo-----	Very limited Filtering capacity Restricted permeability Slope	1.00 0.46 0.37	Very limited Seepage Slope	1.00 1.00
43D: Antigo-----	Very limited Filtering capacity Slope Restricted permeability	1.00 1.00 0.46	Very limited Slope Seepage	1.00 1.00
48B: Brill-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.46	Very limited Seepage Slope Depth to saturated zone	1.00 0.32 0.01

Table 19a.--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
57B: Spencer-----	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage Slope	0.53 0.32
59A: Almena-----	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage	0.53
63B: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage Slope Depth to saturated zone	0.53 0.32 0.25
63C: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability Slope	1.00 1.00 0.04	Very limited Slope Seepage Depth to saturated zone	1.00 0.53 0.25
63D: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone Seepage	1.00 0.81 0.53
63E: Crystal Lake-----	Very limited Depth to saturated zone Slope Restricted permeability	1.00 1.00 1.00	Very limited Slope Depth to saturated zone Seepage	1.00 0.81 0.53
77A: Auburndale-----	Very limited Depth to saturated zone Restricted permeability Ponding	1.00 1.00 1.00	Very limited Ponding Seepage	1.00 0.53
182B: Padus-----	Very limited Filtering capacity Restricted permeability	1.00 0.46	Very limited Seepage Slope	1.00 0.08

Table 19a.--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
182C: Padus-----	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	0.46	Slope	1.00
	Slope	0.37		
182D: Padus-----	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
	Restricted permeability	0.46		
192A: Worcester-----	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		
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
	Ponding	1.00	Ponding	1.00
	Restricted permeability	0.46		
215B: Pence-----	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
			Slope	0.08
215C: Pence-----	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Slope	0.37	Slope	1.00
215D: Pence-----	Very limited		Very limited	
	Filtering capacity	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
308B: Blackriver-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Slope	0.32
	Restricted permeability	0.46	Depth to saturated zone	0.01

Table 19a.--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
315A: Rib-----	Very limited Depth to saturated zone Filtering capacity Ponding Restricted permeability	 1.00 1.00 1.00 0.46	Very limited Seepage Depth to saturated zone Ponding	 1.00 1.00 1.00
324A: Maplehurst-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	 1.00 1.00 0.46	Very limited Seepage Depth to saturated zone	 1.00 1.00
337A: Plover-----	Very limited Depth to saturated zone Restricted permeability	 1.00 0.46	Somewhat limited Seepage	 0.53
345B: Freeon, very stony--	Very limited Depth to saturated zone Restricted permeability	 1.00 1.00	Not rated	
Sconsin-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	 1.00 1.00 0.46	Very limited Seepage Slope Depth to saturated zone	 1.00 0.32 0.01
346E: Newot, very stony---	Very limited Restricted permeability Slope	 1.00 1.00	Not rated	
Pence, very stony---	Very limited Filtering capacity Slope	 1.00 1.00	Very limited Slope Seepage	 1.00 1.00
355B: Loyal-----	Very limited Depth to saturated zone Restricted permeability	 1.00 1.00	Somewhat limited Seepage Slope	 0.53 0.32

Table 19a.--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
355C:				
Loyal-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	1.00	Seepage	0.53
	Slope	0.04		
356A:				
Withee-----	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53
	Restricted permeability	1.00		
357A:				
Marshfield-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	1.00	Seepage	0.53
	Ponding	1.00		
408A:				
Lupton-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Ponding	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	Ponding	1.00
	Restricted permeability	0.72	Seepage	0.28
414A:				
Loxley-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
Beseman-----	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	1.00		
	Subsidence	1.00		
	Ponding	1.00		
457B:				
Freeon, very stony--	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	1.00		

Table 19a.--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
457B: Freeon-----	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53
	Restricted permeability	1.00	Slope	0.32
457C: Freeon, very stony--	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	1.00		
	Slope	0.04		
Freeon-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	1.00	Seepage	0.53
	Slope	0.04		
515A: Manitowish-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	1.00
525B: Newood, very stony--	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53
	Restricted permeability	0.46	Slope	0.32
			Depth to saturated zone	0.25
Padwood-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Slope	0.32
	Restricted permeability	1.00	Depth to saturated zone	0.25
Tipler-----	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		
527B: Padwood-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Depth to saturated zone	0.25
	Restricted permeability	1.00	Slope	0.08

Table 19a.--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
537D:				
Newot, very stony---	Very limited		Not rated	
	Restricted permeability	1.00		
	Slope	1.00		
Newood, very stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53
	Slope	0.37	Depth to saturated zone	0.25
Cathro-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Restricted permeability	0.72	Seepage	0.28
545C:				
Freeon, very stony--	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	1.00		
	Slope	0.37		
Antigo-----	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	0.46	Slope	1.00
	Slope	0.37		
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
	Ponding	1.00	Ponding	1.00
560A:				
Worwood-----	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Filtering capacity	1.00		
	Restricted permeability	1.00		
571E:				
Pelissier-----	Very limited		Not rated	
	Filtering capacity	1.00		
	Slope	1.00		

Table 19a.--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
612A: Magnor, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage	0.53
Ossmer-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.46	Very limited Seepage Depth to saturated zone	1.00 1.00
623A: Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Seepage	1.00 0.53
624A: Ossmer-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.46	Very limited Seepage Depth to saturated zone	1.00 1.00
632B: Aftad-----	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage Slope Depth to saturated zone	0.53 0.32 0.25
637B: Newood, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 0.46	Somewhat limited Seepage Slope Depth to saturated zone	0.53 0.32 0.25
637C: Newood, very stony--	Very limited Depth to saturated zone Restricted permeability Slope	1.00 0.46 0.37	Very limited Slope Seepage Depth to saturated zone	1.00 0.53 0.25
642B: Pesabic, very stony	Very limited Depth to saturated zone Restricted permeability	1.00 0.46	Not rated	

Table 19a.--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
642B:				
Capitola, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Seepage	0.53
Newood, very stony--	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53
	Restricted permeability	0.46	Slope	0.32
			Depth to saturated zone	0.25
648B:				
Sconsin-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Slope	0.32
	Restricted permeability	0.46	Depth to saturated zone	0.01
683A:				
Tipler-----	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		
737D:				
Santiago, very stony	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Seepage	0.53
748A:				
Brander-----	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		
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
	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
	Ponding	1.00	Ponding	1.00

Table 19a.--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
757B:				
Magnor, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage	0.53
Freeon, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Not rated	
Magnor-----	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage	0.53
Freeon-----	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage Slope	0.53 0.32
766A:				
Moppet-----	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.46	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
822A:				
Comstock-----	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage	0.53
Magnor, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage	0.53
Ossmer-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.46	Very limited Seepage Depth to saturated zone	1.00 1.00

Table 19a.--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
837E: Newot, very stony---	Very limited Restricted permeability Slope	1.00 1.00	Not rated	
848A: Ribriver-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.46	Very limited Seepage Depth to saturated zone	1.00 1.00
863B: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage Slope Depth to saturated zone	0.53 0.32 0.25
Freeon, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Not rated	
Sconsin-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.46	Very limited Seepage Slope Depth to saturated zone	1.00 0.32 0.01
923A: Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Seepage	1.00 0.53
Cebana, very stony--	Very limited Depth to saturated zone Ponding Restricted permeability	1.00 1.00 0.46	Very limited Ponding Seepage	1.00 0.53
956B: Magnor, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Somewhat limited Seepage	0.53

Table 19a.--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
957B: Freeon, very stony--	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	1.00		
957C: Freeon, very stony--	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	1.00		
	Slope	0.37		
2015: Pits-----	Not rated		Not rated	
3011A: Barronett-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	1.00	Seepage	0.53
	Ponding	1.00		
3456A: Magnor, very stony--	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53
	Restricted permeability	1.00		
Magnor-----	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53
	Restricted permeability	1.00		
3525C: Newood, very stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53
	Slope	0.37	Depth to saturated zone	0.25
Padwood-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Filtering capacity	1.00	Slope	1.00
	Restricted permeability	1.00	Depth to saturated zone	0.25
	Slope	0.37		

Table 19a.--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
3525C:				
Padus-----	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Restricted permeability	0.46	Slope	1.00
	Slope	0.37		
3546C:				
Newood, very stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53
	Slope	0.37	Depth to saturated zone	0.25
Pence, very stony---	Very limited		Very limited	
	Filtering capacity	1.00	Seepage	1.00
	Slope	0.37	Slope	1.00
3556C:				
Newood, very stony--	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53
	Slope	0.37	Depth to saturated zone	0.25
Magnor, very stony--	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53
	Restricted permeability	1.00		
Cathro-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Restricted permeability	0.72	Seepage	0.28
3561A:				
Pesabic, very stony	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	0.46		
Worwood-----	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Filtering capacity	1.00		
	Restricted permeability	1.00		

Table 19a.--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
3561A: Worcester-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.46	Very limited Seepage Depth to saturated zone	1.00 1.00
3569C: Newood, very stony--	Very limited Depth to saturated zone Restricted permeability Slope	1.00 0.46 0.04	Very limited Slope Seepage Depth to saturated zone	1.00 0.53 0.25
Pesabic, very stony	Very limited Depth to saturated zone Restricted permeability	1.00 0.46	Not rated	
Cathro-----	Very limited Depth to saturated zone Ponding Restricted permeability	1.00 1.00 0.72	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.28
3666B: Pesabic, very stony	Very limited Depth to saturated zone Restricted permeability	1.00 0.46	Not rated	
3863C: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability Slope	1.00 1.00 0.37	Very limited Slope Seepage Depth to saturated zone	1.00 0.53 0.25
Freeon, very stony--	Very limited Depth to saturated zone Restricted permeability Slope	1.00 1.00 0.37	Not rated	
Antigo-----	Very limited Filtering capacity Restricted permeability Slope	1.00 0.46 0.37	Very limited Seepage Slope	1.00 1.00

Table 19a.--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
9052A:				
Cathro-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Restricted permeability	0.72	Seepage	0.28
Capitola, very stony	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Seepage	0.53
Lupton-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Ponding	1.00
	Ponding	1.00		
9055A:				
Loxley-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Seepage	1.00
	Ponding	1.00	Ponding	1.00
9060D:				
Pelissier-----	Very limited		Not rated	
	Filtering capacity	1.00		
	Slope	1.00		
9071B:				
Freeon, very stony--	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	1.00		
9077C:				
Freeon, very stony--	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	1.00		
	Slope	1.00		
9078A:				
Freeon, very stony--	Very limited		Not rated	
	Depth to saturated zone	1.00		
	Restricted permeability	1.00		
Magnor, very stony--	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53
	Restricted permeability	1.00		

Table 19a.--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
9078A: Ossmer-----	Very limited Depth to saturated zone Filtering capacity Restricted permeability	 1.00 1.00 0.46	Very limited Seepage Depth to saturated zone	 1.00 1.00
9081C: Newot, very stony---	Very limited Restricted permeability Slope	 1.00 1.00	Not rated	
9082B: Newood, very stony--	Very limited Depth to saturated zone Restricted permeability	 1.00 0.46	Very limited Slope Seepage Depth to saturated zone	 1.00 0.53 0.25
9083A: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability	 1.00 1.00	Somewhat limited Seepage Depth to saturated zone Slope	 0.53 0.25 0.08
9083B: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability	 1.00 1.00	Very limited Slope Seepage Depth to saturated zone	 1.00 0.53 0.25
9086A: Freeon, very stony--	Very limited Depth to saturated zone Restricted permeability	 1.00 1.00	Not rated	
9087C: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability Slope	 1.00 1.00 1.00	Very limited Slope Seepage Depth to saturated zone	 1.00 0.53 0.25
Freeon, very stony--	Very limited Depth to saturated zone Restricted permeability Slope	 1.00 1.00 0.84	Not rated	

Table 19a.--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
9087C: Newot, very stony---	Very limited Restricted permeability Slope	1.00 1.00	Not rated	
9088A: Newood, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 0.46	Somewhat limited Seepage Slope Depth to saturated zone	0.53 0.32 0.25
Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Seepage	1.00 0.53
9089B: Newood, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 0.46	Somewhat limited Slope Seepage Depth to saturated zone	0.92 0.53 0.25
Lupton-----	Very limited Depth to saturated zone Subsidence Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
9090C: Newood, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 0.46	Very limited Slope Seepage Depth to saturated zone	1.00 0.53 0.25
Newot, very stony---	Very limited Restricted permeability Slope	1.00 1.00	Not rated	
Lupton-----	Very limited Depth to saturated zone Subsidence Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
9092D: Newot, very stony---	Very limited Restricted permeability Slope	1.00 1.00	Not rated	
9093C: Pence-----	Very limited Filtering capacity Slope	1.00 1.00	Very limited Slope Seepage	1.00 1.00

Table 19a.--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
9093C: Padus-----	Very limited Filtering capacity Slope Restricted permeability	1.00 1.00 0.46	Very limited Slope Seepage	1.00 1.00
9096C: Newot, very stony---	Very limited Restricted permeability Slope	1.00 1.00	Not rated	
Pesabic, very stony	Very limited Depth to saturated zone Restricted permeability	1.00 0.46	Not rated	
Lupton-----	Very limited Depth to saturated zone Subsidence Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
9097B: Newood, very stony--	Very limited Depth to saturated zone Restricted permeability	1.00 0.46	Very limited Slope Seepage Depth to saturated zone	1.00 0.53 0.25
Padus, very stony---	Very limited Filtering capacity Restricted permeability	1.00 0.46	Very limited Seepage Slope	1.00 1.00
9098A: Oesterle-----	Very limited Depth to saturated zone Filtering capacity	1.00 1.00	Not rated	
9099B: Antigo-----	Very limited Filtering capacity Restricted permeability	1.00 0.46	Not rated	
9197C: Pelissier-----	Very limited Filtering capacity Slope	1.00 1.00	Not rated	

Table 19a.--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
M-W: Miscellaneous water	Not rated		Not rated	
W: Water-----	Not rated		Not rated	

Table 19b.--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
22A: Comstock-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
24A: Poskin-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage	1.00 1.00 1.00
43B: Antigo-----	Very limited Seepage Too sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too sandy Seepage	1.00 1.00
43C: Antigo-----	Very limited Seepage Too sandy Slope	1.00 1.00 0.37	Very limited Seepage Slope	1.00 0.37	Very limited Too sandy Seepage Slope	1.00 1.00 0.37
43D: Antigo-----	Very limited Slope Seepage Too sandy	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Too sandy Seepage	1.00 1.00 1.00
48B: Brill-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00	Very limited Seepage Depth to saturated zone	1.00 1.00	Very limited Too sandy Seepage Depth to saturated zone	1.00 1.00 1.00
57B: Spencer-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
59A: Almena-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
63B: Crystal Lake-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.86

Table 19b.--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
63C: Crystal Lake-----	Very limited Depth to saturated zone Slope	1.00 0.04	Very limited Depth to saturated zone Slope	1.00 0.04	Somewhat limited Depth to saturated zone Slope	0.86 0.04
63D: Crystal Lake-----	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Slope Depth to saturated zone	1.00 0.47
63E: Crystal Lake-----	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Slope Depth to saturated zone	1.00 0.47
77A: Auburndale-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
182B: Padus-----	Very limited Seepage Too sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too sandy Seepage	1.00 1.00
182C: Padus-----	Very limited Seepage Too sandy Slope	1.00 1.00 0.37	Very limited Seepage Slope	1.00 0.37	Very limited Too sandy Seepage Slope	1.00 1.00 0.37
182D: Padus-----	Very limited Slope Seepage Too sandy	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Too sandy Seepage	1.00 1.00 1.00
192A: Worcester-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Gravel content	1.00 1.00 1.00 0.03
193A: Minocqua-----	Very limited Depth to saturated zone Seepage Too sandy Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Ponding	1.00 1.00 1.00 1.00

Table 19b.--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
215B: Pence-----	Very limited Seepage Too sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too sandy Seepage Gravel content	1.00 1.00 0.16
215C: Pence-----	Very limited Seepage Too sandy Slope	1.00 1.00 0.37	Very limited Seepage Slope	1.00 0.37	Very limited Too sandy Seepage Slope Gravel content	1.00 1.00 0.37 0.16
215D: Pence-----	Very limited Slope Seepage Too sandy	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Too sandy Seepage Gravel content	1.00 1.00 1.00 0.16
308B: Blackriver-----	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
315A: Rib-----	Very limited Depth to saturated zone Seepage Too sandy Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Ponding	1.00 1.00 1.00 1.00
324A: Maplehurst-----	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
337A: Plover-----	Very limited Depth to saturated zone Too sandy	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Too sandy	1.00 1.00
345B: Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Sconsin-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00	Very limited Seepage Depth to saturated zone	1.00 1.00	Very limited Too sandy Seepage Depth to saturated zone	1.00 1.00 1.00

Table 19b.--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
346E: Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Pence, very stony---	Very limited Slope Seepage Too sandy	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Too sandy Seepage Gravel content	1.00 1.00 1.00 0.16
355B: Loyal-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
355C: Loyal-----	Very limited Depth to saturated zone Slope	1.00 0.04	Very limited Depth to saturated zone Slope	1.00 0.04	Very limited Depth to saturated zone Slope	1.00 0.04
356A: Withee-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
357A: Marshfield-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
408A: Lupton-----	Very limited Depth to saturated zone Content of organic matter Seepage Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding Seepage	1.00 1.00 1.00 1.00 0.16
Cathro-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Seepage Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
414A: Loxley-----	Very limited Depth to saturated zone Content of organic matter Seepage Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding Seepage	1.00 1.00 1.00 1.00 0.16

Table 19b.--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
414A: Beseman-----	Very limited Depth to saturated zone Ponding Content of organic matter	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Content of organic matter Seepage	1.00 1.00 1.00 0.22
457B: Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Freeon-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
457C: Freeon, very stony--	Very limited Depth to saturated zone Slope	1.00 0.04	Very limited Depth to saturated zone Slope	1.00 0.04	Very limited Depth to saturated zone Slope	1.00 0.04
Freeon-----	Very limited Depth to saturated zone Slope	1.00 0.04	Very limited Depth to saturated zone Slope	1.00 0.04	Very limited Depth to saturated zone Slope	1.00 0.04
515A: Manitowish-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Too sandy Seepage Depth to saturated zone Gravel content	1.00 1.00 0.47 0.06
525B: Newood, very stony--	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone	0.86
Padwood-----	Very limited Too sandy Depth to saturated zone	1.00 1.00	Very limited Seepage Depth to saturated zone	1.00 0.75	Very limited Too sandy Depth to saturated zone	1.00 0.86
Tipler-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Too sandy Seepage Depth to saturated zone Gravel content	1.00 1.00 0.47 0.02
527B: Padwood-----	Very limited Too sandy Depth to saturated zone	1.00 1.00	Very limited Seepage Depth to saturated zone	1.00 0.75	Very limited Too sandy Depth to saturated zone	1.00 0.86

Table 19b.--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
537D:						
Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Newood, very stony--	Very limited Depth to saturated zone Slope	1.00 0.37	Somewhat limited Depth to saturated zone Slope	0.75 0.37	Somewhat limited Depth to saturated zone Slope	0.86 0.37
Cathro-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Seepage Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
545C:						
Freeon, very stony--	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 0.37
Antigo-----	Very limited Seepage Too sandy Slope	1.00 1.00 0.37	Very limited Seepage Slope	1.00 0.37	Very limited Too sandy Seepage Slope	1.00 1.00 0.37
555A:						
Fordum-----	Very limited Flooding Depth to saturated zone Seepage Too sandy Ponding	1.00 1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Ponding Gravel content	1.00 1.00 1.00 1.00 1.00 0.03
560A:						
Worwood-----	Very limited Depth to saturated zone Too sandy	1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone Too sandy	1.00 1.00
571E:						
Pelissier-----	Very limited Slope Seepage Too sandy	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Too sandy Seepage Gravel content	1.00 1.00 1.00 0.83
612A:						
Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Ossmer-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage	1.00 1.00 1.00

Table 19b.--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
623A: Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
624A: Ossmer-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage	1.00 1.00
632B: Aftad-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.86
637B: Newood, very stony--	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone	0.86
637C: Newood, very stony--	Very limited Depth to saturated zone Slope	1.00 0.37	Somewhat limited Depth to saturated zone Slope	0.75 0.37	Somewhat limited Depth to saturated zone Slope	0.86 0.37
642B: Pesabic, very stony	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Gravel content	1.00 0.01
Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
Newood, very stony--	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone	0.86
648B: Sconsin-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00	Very limited Seepage Depth to saturated zone	1.00 1.00	Very limited Too sandy Seepage Depth to saturated zone	1.00 1.00 1.00
683A: Tipler-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Too sandy Seepage Depth to saturated zone Gravel content	1.00 1.00 0.47 0.02

Table 19b.--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
737D: Santiago, very stony	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
748A: Brander-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Too sandy Seepage Depth to saturated zone	1.00 1.00 1.00
755A: Moppet-----	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Somewhat limited Depth to saturated zone	0.47
Fordum-----	Very limited Flooding Depth to saturated zone Seepage Too sandy Ponding	1.00 1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Ponding Gravel content	1.00 1.00 1.00 1.00 0.03
757B: Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Magnor-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Freeon-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
766A: Moppet-----	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Somewhat limited Depth to saturated zone	0.47
822A: Comstock-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

Table 19b.--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
822A: Ossmer-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage	1.00 1.00 1.00 1.00
837E: Newot, very stony--	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
848A: Ribriver-----	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
863B: Crystal Lake-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.86
Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Sconsin-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00 1.00	Very limited Seepage Depth to saturated zone	1.00 1.00	Very limited Too sandy Seepage Depth to saturated zone	1.00 1.00 1.00
923A: Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00 1.00
Cebana, very stony--	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
956B: Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
957B: Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
957C: Freeon, very stony--	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Depth to saturated zone Slope	1.00 0.37

Table 19b.--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
2015: Pits-----	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
3456A: 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
3525C: Newood, very stony--	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.37	Slope	0.37	Slope	0.37
Padwood-----	Very limited		Very limited		Very limited	
	Too sandy	1.00	Seepage	1.00	Too sandy	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.37	Slope	0.37	Slope	0.37
Padus-----	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
3546C: Newood, very stony--	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.37	Slope	0.37	Slope	0.37
Pence, very stony---	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
					Gravel content	0.16
3556C: Newood, very stony--	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.37	Slope	0.37	Slope	0.37
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

Table 19b.--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
3556C:						
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 Ponding	1.00 1.00	Ponding	1.00
3561A:						
Pesabic, 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
					Gravel content	0.01
Worwood-----	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
Worcester-----	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	0.03
3569C:						
Newood, very stony--	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Slope	0.04	Slope	0.04	Slope	0.04
Pesabic, 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
					Gravel content	0.01
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 Ponding	1.00 1.00	Ponding	1.00
3666B:						
Pesabic, 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
					Gravel content	0.01
3863C:						
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	0.37	Slope	0.37	Slope	0.37
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	0.37	Slope	0.37	Slope	0.37

Table 19b.--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
3863C:						
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
9052A:						
Cathro-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Ponding	1.00	Seepage	1.00	Ponding	1.00
			Ponding	1.00		
Capitola, very stony	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
Lupton-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Content of	1.00	Seepage	1.00	Content of	1.00
	organic matter		Ponding	1.00	organic matter	
	Seepage	1.00			Ponding	1.00
	Ponding	1.00			Seepage	0.16
9055A:						
Loxley-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Content of	1.00	Seepage	1.00	Content of	1.00
	organic matter		Ponding	1.00	organic matter	
	Seepage	1.00			Ponding	1.00
	Ponding	1.00			Seepage	0.16
9060D:						
Pelissier-----	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	0.99
9071B:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
9077C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Slope	1.00	Slope	1.00	Slope	1.00
9078A:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	

Table 19b.--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
9078A: Magnor, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Ossmer-----	Very limited Depth to saturated zone Seepage Too sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage	1.00 1.00 1.00
9081C: Newot, very stony--	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
9082B: Newood, very stony--	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone	0.86
9083A: Crystal Lake-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.86
9083B: Crystal Lake-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.86
9086A: Freeon, very stony--	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
9087C: Crystal Lake-----	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Slope Depth to saturated zone	1.00 0.86
Freeon, very stony--	Very limited Depth to saturated zone Slope	1.00 0.84	Very limited Depth to saturated zone Slope	1.00 0.84	Very limited Depth to saturated zone Slope	1.00 0.84
Newot, very stony--	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
9088A: Newood, very stony--	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone	0.86
Capitola, very stony	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00

Table 19b.--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
9089B:						
Newood, very stony--	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone	0.86
Lupton-----	Very limited Depth to saturated zone Content of organic matter Seepage Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding Seepage	1.00 1.00 1.00 0.16
9090C:						
Newood, very stony--	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone	0.86
Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Lupton-----	Very limited Depth to saturated zone Content of organic matter Seepage Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding Seepage	1.00 1.00 1.00 0.16
9092D:						
Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
9093C:						
Pence-----	Very limited Seepage Too sandy Slope	1.00 1.00 1.00	Very limited Seepage Slope	1.00 1.00	Very limited Too sandy Seepage Slope Gravel content	1.00 1.00 1.00 0.16
Padus-----	Very limited Seepage Too sandy Slope	1.00 1.00 1.00	Very limited Seepage Slope	1.00 1.00	Very limited Too sandy Seepage Slope	1.00 1.00 1.00
9096C:						
Newot, very stony---	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Pesabic, very stony	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Gravel content	1.00 0.01

Table 19b.--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
9096C:						
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	Ponding	1.00	Ponding	1.00
	Ponding	1.00			Seepage	0.16
9097B:						
Newood, very stony--	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86
Padus, 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
9098A:						
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
9099B:						
Antigo-----	Very limited		Not limited		Very limited	
	Seepage	1.00			Too sandy	1.00
	Too sandy	1.00			Seepage	1.00
9197C:						
Pelissier-----	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	0.90
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water-----	Not rated		Not rated		Not rated	

Table 20a.--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. 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
22A: Comstock-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
24A: Poskin-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
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
43D: Antigo-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
48B: Brill-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
57B: Spencer-----	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.03
59A: Almena-----	Poor		Poor	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom 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 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
63D: Crystal Lake-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
63E: Crystal Lake-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
77A: Auburndale-----	Poor		Poor	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.00
182B: Padus-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.08	Bottom layer	0.50
182C: Padus-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.08	Bottom layer	0.50
182D: Padus-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.08	Bottom layer	0.50
192A: Worcester-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.04
	Bottom layer	0.08	Bottom layer	0.50
193A: Minocqua-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
215B: Pence-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.03
	Bottom layer	0.08	Bottom layer	0.50
215C: Pence-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.03
	Bottom layer	0.08	Bottom layer	0.50
215D: Pence-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.03
	Bottom layer	0.08	Bottom layer	0.50
308B: Blackriver-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.07

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
315A: Rib-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
324A: Maplehurst-----	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
345B: Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
Sconsin-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.25	Bottom layer	0.01
346E: Newot, very stony---	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.03
	Bottom layer	0.01	Bottom layer	0.03
Pence, very stony---	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.03
	Bottom layer	0.08	Bottom layer	0.50
355B: Loyal-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
355C: Loyal-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
356A: Withee-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
357A: Marshfield-----	Poor		Poor	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.00
408A: Lupton-----	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

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
414A:				
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
457B:				
Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
Freeon-----	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
457C:				
Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
Freeon-----	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
515A:				
Manitowish-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.03
	Bottom layer	0.08	Bottom layer	0.50
525B:				
Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
Padwood-----	Fair		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.18	Thickest layer	0.30
Tipler-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.03
	Bottom layer	0.08	Bottom layer	0.50
527B:				
Padwood-----	Fair		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.18	Thickest layer	0.30
537D:				
Newot, very stony---	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.03
	Bottom layer	0.01	Bottom layer	0.03
Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
537D: Cathro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
545C: Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
Antigo-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
555A: Fordum-----	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.53
560A: Worwood-----	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.03
571E: Pelissier-----	Fair		Fair	
	Bottom layer	0.24	Thickest layer	0.14
	Thickest layer	0.27	Bottom layer	0.54
612A: Magnor, very stony--	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.04
Ossmer-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
623A: Capitola, very stony	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
632B: Aftad-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
637B: Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
637C: Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
642B: Pesabic, very stony	Fair		Fair	
	Thickest layer	0.01	Bottom layer	0.02
	Bottom layer	0.01	Thickest layer	0.02
Capitola, very stony	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.04
Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
648B: Sconsin-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.25	Bottom layer	0.01
683A: Tipler-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.03
	Bottom layer	0.08	Bottom layer	0.50
737D: Santiago, very stony	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.04
748A: Brander-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
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
757B: Magnor, very stony--	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.04
Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
Magnor-----	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.04

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
757B:				
Freeon-----	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
766A:				
Moppet-----	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.42
822A:				
Comstock-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Magnor, very stony--	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.04
Ossmer-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
837E:				
Newot, very stony---	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.03
	Bottom layer	0.01	Bottom layer	0.03
848A:				
Ribriver-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
863B:				
Crystal Lake-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
Sconsin-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.25	Bottom layer	0.01
923A:				
Capitola, very stony	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.04
Cebana, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.04
956B:				
Magnor, very stony--	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.04

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
957B:				
Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
957C:				
Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
2015:				
Pits-----	Not rated		Not rated	
3011A:				
Barronett-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
3456A:				
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
3525C:				
Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
Padwood-----	Fair		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.18	Thickest layer	0.30
Padus-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.08	Bottom layer	0.50
3546C:				
Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
Pence, very stony---	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.03
	Bottom layer	0.08	Bottom layer	0.50
3556C:				
Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
Magnor, very stony--	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.04
Cathro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
3561A:				
Pesabic, very stony	Fair		Fair	
	Thickest layer	0.01	Bottom layer	0.02
	Bottom layer	0.01	Thickest layer	0.02
Worwood-----	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.03
Worcester-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.04
	Bottom layer	0.08	Bottom layer	0.50
3569C:				
Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
Pesabic, very stony	Fair		Fair	
	Thickest layer	0.01	Bottom layer	0.02
	Bottom layer	0.01	Thickest layer	0.02
Cathro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
3666B:				
Pesabic, very stony	Fair		Fair	
	Thickest layer	0.01	Bottom layer	0.02
	Bottom layer	0.01	Thickest layer	0.02
3863C:				
Crystal Lake-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
Antigo-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
9052A:				
Cathro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
Capitola, very stony	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.04
Lupton-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
9055A:				
Loxley-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
9060D: Pelissier-----	Fair		Fair	
	Thickest layer	0.27	Thickest layer	0.15
	Bottom layer	0.39	Bottom layer	0.54
9071B: Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
9077C: Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
9078A: Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
Magnor, very stony--	Poor		Fair	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.04
Ossmer-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
9081C: Newot, very stony---	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.03
	Bottom layer	0.01	Bottom layer	0.03
9082B: Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
9083A: Crystal Lake-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
9083B: Crystal Lake-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
9086A: Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03
9087C: Crystal Lake-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Freeon, very stony--	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.01
	Bottom layer	0.00	Bottom layer	0.03

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
9087C: Newot, very stony---	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.03
	Bottom layer	0.01	Bottom layer	0.03
9088A: Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
Capitola, very stony	Poor		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.00	Bottom layer	0.04
9089B: Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
Lupton-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
9090C: Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
Newot, very stony---	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.03
	Bottom layer	0.01	Bottom layer	0.03
Lupton-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
9092D: Newot, very stony---	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.03
	Bottom layer	0.01	Bottom layer	0.03
9093C: Pence-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.03
	Bottom layer	0.08	Bottom layer	0.50
Padus-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.08	Bottom layer	0.50
9096C: Newot, very stony---	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.03
	Bottom layer	0.01	Bottom layer	0.03
Pesabic, very stony	Fair		Fair	
	Thickest layer	0.01	Bottom layer	0.02
	Bottom layer	0.01	Thickest layer	0.02

Table 20a.--Construction Materials--Continued

Map symbol and soil name	Potential as source of gravel		Potential as source of sand	
	Rating class	Value	Rating class	Value
9096C: Lupton-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
9097B: Newood, very stony--	Fair		Fair	
	Thickest layer	0.01	Thickest layer	0.01
	Bottom layer	0.01	Bottom layer	0.04
Padus, very stony---	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.02
	Bottom layer	0.08	Bottom layer	0.50
9098A: Oesterle-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.08
	Bottom layer	0.08	Bottom layer	0.50
9099B: Antigo-----	Fair		Fair	
	Thickest layer	0.00	Thickest layer	0.00
	Bottom layer	0.08	Bottom layer	0.50
9197C: Pelissier-----	Fair		Fair	
	Bottom layer	0.39	Thickest layer	0.54
	Thickest layer	0.39	Bottom layer	0.54
M-W: Miscellaneous water	Not rated		Not rated	
W: Water-----	Not rated		Not rated	

Table 20b.--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
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				
24A: Poskin-----	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	0.90				
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				
43D: Antigo-----	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.08	Slope	0.00
	Too acid	0.68			Hard to reclaim (rock fragments)	0.68
	Water erosion	0.90				
48B: Brill-----	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.14	Depth to saturated zone	0.14
	Too acid	0.68			Hard to reclaim (rock fragments)	0.68
	Water erosion	0.90				
57B: Spencer-----	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	Shrink-swell	0.99	Hard to reclaim (dense layer)	0.03
	Water erosion	0.90			Hard to reclaim (rock fragments)	0.98
					Too acid	0.98

Table 20b.--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
59A: Almena-----	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	Low strength	0.00	Hard to reclaim (dense layer)	0.01
	Water erosion	0.90	Shrink-swell	0.99	Hard to reclaim (rock fragments)	0.98
					Too acid	0.98
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
63D: Crystal Lake-----	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.89	Slope	0.00
	Too acid	0.54	Slope	0.98	Depth to saturated zone	0.89
	Water erosion	0.90			Too acid	0.98
63E: Crystal Lake-----	Fair		Poor		Poor	
	Low content of organic matter	0.12	Slope	0.00	Slope	0.00
	Too acid	0.54	Depth to saturated zone	0.89	Depth to saturated zone	0.89
	Water erosion	0.90			Too acid	0.98
77A: Auburndale-----	Fair		Poor		Poor	
	Too acid	0.54	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Low content of organic matter	0.60	Low strength	0.00	Hard to reclaim (rock fragments)	0.92
	Water erosion	0.90	Shrink-swell	0.99	Too acid	0.98
182B: Padus-----	Fair		Good		Fair	
	Low content of organic matter	0.12			Hard to reclaim (rock fragments)	0.68
	Too acid	0.54			Rock fragments	0.98
					Too acid	0.98
182C: Padus-----	Fair		Good		Fair	
	Low content of organic matter	0.12			Slope	0.63
	Too acid	0.54			Hard to reclaim (rock fragments)	0.68
					Rock fragments	0.98
					Too acid	0.98

Table 20b.--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
182D: Padus-----	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.08	Slope	0.00
	Too acid	0.54			Hard to reclaim (rock fragments)	0.68
					Rock fragments	0.98
					Too acid	0.98
192A: Worcester-----	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			Rock fragments	0.12
	Droughty	0.96			Hard to reclaim (rock fragments)	0.68
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
215B: Pence-----	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Low content of organic matter	0.12			Rock fragments	0.00
	Droughty	0.26			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54				
215C: Pence-----	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Low content of organic matter	0.12			Rock fragments	0.00
	Droughty	0.26			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Slope	0.63
215D: Pence-----	Poor		Fair		Poor	
	Too sandy	0.00	Slope	0.08	Slope	0.00
	Low content of organic matter	0.12			Too sandy	0.00
	Droughty	0.26			Rock fragments	0.00
	Too acid	0.54			Hard to reclaim (rock fragments)	0.32
308B: Blackriver-----	Fair		Poor		Fair	
	Low content of organic matter	0.12	Low strength Depth to saturated zone	0.00 0.14	Depth to saturated zone	0.14
	Too acid	0.68				
	Water erosion	0.90				
315A: Rib-----	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Too acid	0.88			Hard to reclaim (rock fragments)	0.68
	Water erosion	0.90				

Table 20b.--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
324A: Maplehurst-----	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	Low strength	0.00	Hard to reclaim (rock fragments)	0.68
	Water erosion	0.90				
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				
345B: Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
					Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
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				
346E: Newot, very stony---	Fair		Poor		Poor	
	Too acid	0.12	Slope	0.00	Slope	0.00
	Low content of organic matter	0.12			Hard to reclaim (dense layer)	0.00
	Droughty	0.90			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
Pence, very stony---	Poor		Poor		Poor	
	Too sandy	0.00	Slope	0.00	Slope	0.00
	Low content of organic matter	0.12			Too sandy	0.00
	Droughty	0.26			Rock fragments	0.00
	Too acid	0.54			Hard to reclaim (rock fragments)	0.32
355B: Loyal-----	Fair		Poor		Poor	
	Low content of organic matter	0.50	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Depth to saturated zone	0.00
	Water erosion	0.90			Rock fragments	0.03
					Hard to reclaim (rock fragments)	0.98

Table 20b.--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
355C: Loyal-----	Fair		Poor		Poor	
	Low content of organic matter	0.50	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Too acid	0.54			Depth to saturated zone	0.00
	Water erosion	0.90			Rock fragments	0.03
					Slope	0.96
					Hard to reclaim (rock fragments)	0.98
356A: Withee-----	Fair		Poor		Poor	
	Too acid	0.32	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.50			Depth to saturated zone	0.00
	Water erosion	0.90			Rock fragments	0.03
					Hard to reclaim (rock fragments)	0.98
357A: Marshfield-----	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	0.50			Depth to saturated zone	0.00
	Water erosion	0.90			Too acid	0.76
					Hard to reclaim (rock fragments)	0.98
408A: Lupton-----	Good		Poor		Poor	
			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
414A: 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

Table 20b.--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
457B: Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to	0.00	Hard to reclaim	0.00
	Low content of organic matter	0.12	saturated zone		(dense layer)	
					Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
Freeon-----	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to	0.00	Depth to	0.00
	Too acid	0.20	saturated zone		saturated zone	
	Water erosion	0.90			Rock fragments	0.00
					Hard to reclaim	0.20
					(dense layer)	
					Hard to reclaim	0.92
					(rock fragments)	
457C: Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to	0.00	Hard to reclaim	0.00
	Low content of organic matter	0.12	saturated zone		(dense layer)	
					Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
					Slope	0.96
Freeon-----	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to	0.00	Depth to	0.00
	Too acid	0.20	saturated zone		saturated zone	
	Water erosion	0.90			Rock fragments	0.00
					Hard to reclaim	0.20
					(dense layer)	
					Hard to reclaim	0.92
					(rock fragments)	
					Slope	0.96
515A: Manitowish-----	Poor		Fair		Poor	
	Too sandy	0.00	Depth to	0.89	Too sandy	0.00
	Low content of organic matter	0.12	saturated zone		Rock fragments	0.00
	Droughty	0.37			Hard to reclaim	0.68
	Too acid	0.54			(rock fragments)	
					Depth to	0.89
					saturated zone	
525B: Newood, very stony--	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to	0.53	Hard to reclaim	0.00
	Too acid	0.54	saturated zone		(dense layer)	
	Droughty	0.89			Rock fragments	0.00
					Depth to	0.53
					saturated zone	
					Hard to reclaim	0.92
					(rock fragments)	

Table 20b.--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
525B:						
Padwood-----	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Rock fragments	0.12
	Too acid	0.54			Depth to saturated zone	0.53
Tipler-----	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.89	Rock fragments	0.12
	Too acid	0.54			Hard to reclaim (rock fragments)	0.68
	Droughty	0.97			Depth to saturated zone	0.89
					Too acid	0.98
527B:						
Padwood-----	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Rock fragments	0.12
	Too acid	0.54			Depth to saturated zone	0.53
537D:						
Newot, very stony---	Fair		Poor		Poor	
	Too acid	0.12	Slope	0.00	Slope	0.00
	Low content of organic matter	0.12			Hard to reclaim (dense layer)	0.00
	Droughty	0.90			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
Newood, 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
	Droughty	0.89			Depth to saturated zone	0.53
					Slope	0.63
					Hard to reclaim (rock fragments)	0.92
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
545C:						
Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
					Rock fragments	0.00
					Slope	0.63
					Hard to reclaim (rock fragments)	0.92

Table 20b.--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
545C: 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				
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
560A: Worwood-----	Fair		Poor		Poor	
	Too acid	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00
	Low content of organic matter	0.12			Rock fragments	0.12
571E: Pelissier-----	Poor		Poor		Poor	
	Too sandy	0.00	Slope	0.00	Slope	0.00
	Low content of organic matter	0.12			Too sandy	0.00
	Droughty	0.17			Rock fragments	0.00
	Too acid	0.50			Hard to reclaim (rock fragments)	0.00
					Too acid	0.98
612A: 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
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				
623A: Capitola, very stony	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
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				

Table 20b.--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
632B: Aftad-----	Fair		Fair		Fair	
	Too acid	0.68	Depth to	0.53	Depth to	0.53
	Low content of organic matter	0.88	saturated zone		saturated zone	
	Water erosion	0.90				
637B: Newood, very stony--	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54	saturated zone		Rock fragments	0.00
	Droughty	0.89			Depth to	0.53
					saturated zone	
					Hard to reclaim (rock fragments)	0.92
637C: Newood, very stony--	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54	saturated zone		Rock fragments	0.00
	Droughty	0.89			Depth to	0.53
					saturated zone	
					Slope	0.63
					Hard to reclaim (rock fragments)	0.92
642B: Pesabic, very stony	Fair		Poor		Poor	
	Too acid	0.12	Depth to	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.60	saturated zone		Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
Capitola, very stony	Fair		Poor		Poor	
	Low content of organic matter	0.88	Depth to	0.00	Depth to	0.00
	Too acid	0.88	saturated zone		saturated zone	
	Droughty	0.99			Hard to reclaim (dense layer)	0.03
					Rock fragments	0.97
Newood, very stony--	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to	0.53	Hard to reclaim (dense layer)	0.00
	Too acid	0.54	saturated zone		Rock fragments	0.00
	Droughty	0.89			Depth to	0.53
					saturated zone	
					Hard to reclaim (rock fragments)	0.92
648B: Sconsin-----	Fair		Fair		Poor	
	Too acid	0.68	Depth to	0.14	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.88	saturated zone		Depth to	0.14
	Water erosion	0.99			saturated zone	

Table 20b.--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
683A: Tipler-----	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.89	Rock fragments	0.12
	Too acid	0.54			Hard to reclaim (rock fragments)	0.68
	Droughty	0.97			Depth to saturated zone	0.89
					Too acid	0.98
737D: Santiago, very stony	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.08	Slope	0.00
	Too acid	0.68			Rock fragments	0.00
	Water erosion	0.90			Hard to reclaim (dense layer)	0.03
					Hard to reclaim (rock fragments)	0.92
748A: Brander-----	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.14	Depth to saturated zone	0.14
	Too acid	0.68			Hard to reclaim (rock fragments)	0.68
	Water erosion	0.90				
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
757B: 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
Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
					Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92

Table 20b.--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
757B: 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 Hard to reclaim (rock fragments)	0.00 0.92
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	0.20			Rock fragments	0.00
	Water erosion	0.90			Hard to reclaim (dense layer) Hard to reclaim (rock fragments)	0.20 0.92
766A: 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 Hard to reclaim (rock fragments)	0.89 0.92
822A: 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				
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 Hard to reclaim (rock fragments)	0.00 0.92
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	0.68
	Water erosion	0.99			(rock fragments)	
837E: Newot, very stony---	Fair		Poor		Poor	
	Too acid	0.12	Slope	0.00	Slope	0.00
	Low content of organic matter	0.12			Hard to reclaim (dense layer)	0.00
	Droughty	0.90			Rock fragments Hard to reclaim (rock fragments) Too acid	0.00 0.92 0.98

Table 20b.--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
848A: Ribriver-----	Fair		Poor		Fair	
	Low content of organic matter	0.12	Low strength	0.00	Depth to saturated zone	0.14
	Too acid	0.68	Depth to saturated zone	0.14	Hard to reclaim (rock fragments)	0.68
	Water erosion	0.90				
863B: 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				
Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
					Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
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				
923A: Capitola, very stony	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
Cebana, 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	0.84			Depth to saturated zone	0.00
	Water erosion	0.90			Hard to reclaim (rock fragments)	0.92
956B: 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

Table 20b.--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
957B: Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to	0.00	Hard to reclaim	0.00
	Low content of organic matter	0.12	saturated zone		(dense layer)	
					Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
957C: Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to	0.00	Hard to reclaim	0.00
	Low content of organic matter	0.12	saturated zone		(dense layer)	
					Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Slope	0.63
					Hard to reclaim	0.92
					(rock fragments)	
2015: Pits-----	Not rated		Not rated		Not rated	
3011A: Barronett-----	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to	0.00	Depth to	0.00
	Too acid	0.68	saturated zone		saturated zone	
	Water erosion	0.90				
3456A: Magnor, very stony--	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to	0.00	Hard to reclaim	0.00
	Too acid	0.20	saturated zone		(dense layer)	
	Water erosion	0.90			Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
Magnor-----	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to	0.00	Hard to reclaim	0.00
	Too acid	0.20	saturated zone		(dense layer)	
	Water erosion	0.90			Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
3525C: Newood, very stony--	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to	0.53	Hard to reclaim	0.00
	Too acid	0.54	saturated zone		(dense layer)	
	Droughty	0.89			Rock fragments	0.00
					Depth to	0.53
					saturated zone	
					Slope	0.63
					Hard to reclaim	0.92
					(rock fragments)	

Table 20b.--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
3525C:						
Padwood-----	Fair		Fair		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Rock fragments	0.12
	Too acid	0.54			Depth to saturated zone	0.53
					Slope	0.63
Padus-----	Fair		Good		Fair	
	Low content of organic matter	0.12			Slope	0.63
	Too acid	0.54			Hard to reclaim (rock fragments)	0.68
					Rock fragments	0.98
					Too acid	0.98
3546C:						
Newood, 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
	Droughty	0.89			Depth to saturated zone	0.53
					Slope	0.63
					Hard to reclaim (rock fragments)	0.92
Pence, very stony---	Poor		Good		Poor	
	Too sandy	0.00			Too sandy	0.00
	Low content of organic matter	0.12			Rock fragments	0.00
	Droughty	0.26			Hard to reclaim (rock fragments)	0.32
	Too acid	0.54			Slope	0.63
3556C:						
Newood, 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
	Droughty	0.89			Depth to saturated zone	0.53
					Slope	0.63
					Hard to reclaim (rock fragments)	0.92
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
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

Table 20b.--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
3561A: Pesabic, very stony	Fair Too acid Low content of organic matter	0.12 0.60	Poor Depth to saturated zone	0.00	Poor Hard to reclaim (dense layer) Depth to saturated zone Rock fragments Hard to reclaim (rock fragments)	0.00 0.00 0.00 0.92
Worwood-----	Fair Too acid Low content of organic matter	0.12 0.12	Poor Depth to saturated zone	0.00	Poor Depth to saturated zone Rock fragments	0.00 0.12
Worcester-----	Fair Low content of organic matter Too acid Droughty	0.12 0.54 0.96	Poor Depth to saturated zone	0.00	Poor Depth to saturated zone Rock fragments Hard to reclaim (rock fragments)	0.00 0.12 0.68
3569C: Newood, very stony--	Fair Low content of organic matter Too acid Droughty	0.12 0.54 0.89	Fair Depth to saturated zone	0.53	Poor Hard to reclaim (dense layer) Rock fragments Depth to saturated zone Hard to reclaim (rock fragments) Slope	0.00 0.00 0.53 0.92 0.96
Pesabic, very stony	Fair Too acid Low content of organic matter	0.12 0.60	Poor Depth to saturated zone	0.00	Poor Hard to reclaim (dense layer) Depth to saturated zone Rock fragments Hard to reclaim (rock fragments)	0.00 0.00 0.00 0.92
Cathro-----	Fair Too acid	0.99	Poor Depth to saturated zone	0.00	Poor Depth to saturated zone Content of organic matter	0.00 0.00
3666B: Pesabic, very stony	Fair Too acid Low content of organic matter	0.12 0.60	Poor Depth to saturated zone	0.00	Poor Hard to reclaim (dense layer) Depth to saturated zone Rock fragments Hard to reclaim (rock fragments)	0.00 0.00 0.00 0.92

Table 20b.--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
3863C: 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	0.63
	Water erosion	0.90			Too acid	0.98
Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
					Rock fragments	0.00
					Slope	0.63
					Hard to reclaim (rock fragments)	0.92
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				
9052A: 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
Capitola, very stony	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
Lupton-----	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
9055A: 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
9060D: Pelissier-----	Poor		Poor		Poor	
	Too sandy	0.00	Slope	0.00	Slope	0.00
	Low content of organic matter	0.12			Too sandy	0.00
	Droughty	0.17			Rock fragments	0.00
	Too acid	0.50			Hard to reclaim (rock fragments)	0.00
					Too acid	0.98

Table 20b.--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
9071B: Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to	0.00	Hard to reclaim	0.00
	Low content of organic matter	0.12	saturated zone		(dense layer)	
					Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
9077C: Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to	0.00	Hard to reclaim	0.00
	Low content of organic matter	0.12	saturated zone		(dense layer)	
					Depth to	0.00
					saturated zone	
					Slope	0.00
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
9078A: Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to	0.00	Hard to reclaim	0.00
	Low content of organic matter	0.12	saturated zone		(dense layer)	
					Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
Magnor, very stony--	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to	0.00	Hard to reclaim	0.00
	Too acid	0.20	saturated zone		(dense layer)	
	Water erosion	0.90			Depth to	0.00
					saturated zone	
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
Ossmer-----	Fair		Poor		Poor	
	Low content of organic matter	0.12	Depth to	0.00	Depth to	0.00
	Too acid	0.68	saturated zone		saturated zone	
	Water erosion	0.99			Hard to reclaim	0.68
					(rock fragments)	
9081C: Newot, very stony---	Fair		Fair		Poor	
	Too acid	0.12	Slope	0.50	Hard to reclaim	0.00
	Low content of organic matter	0.12			(dense layer)	
	Droughty	0.90			Slope	0.00
					Rock fragments	0.00
					Hard to reclaim	0.92
					(rock fragments)	
					Too acid	0.98

Table 20b.--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
9082B: Newood, 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
	Droughty	0.89			Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92
9083A: 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				
9083B: 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				
9086A: Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
					Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
9087C: Crystal Lake-----	Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.53	Slope	0.00
	Too acid	0.54			Depth to saturated zone	0.53
	Water erosion	0.90			Too acid	0.98
Freeon, very stony--	Fair		Poor		Poor	
	Too acid	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Depth to saturated zone	0.00
					Rock fragments	0.00
					Slope	0.16
					Hard to reclaim (rock fragments)	0.92
Newot, very stony---	Fair		Good		Poor	
	Too acid	0.12			Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.12			Slope	0.00
	Droughty	0.90			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98

Table 20b.--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
9088A: Newood, very stony--	Fair Low content of organic matter Too acid Droughty	0.12 0.54 0.89	Fair Depth to saturated zone	0.53	Poor Hard to reclaim (dense layer) Rock fragments Depth to saturated zone Hard to reclaim (rock fragments)	0.00 0.00 0.53 0.92
Capitola, very stony	Fair Low content of organic matter Too acid Droughty	0.88 0.88 0.99	Poor Depth to saturated zone	0.00	Poor Depth to saturated zone Hard to reclaim (dense layer) Rock fragments	0.00 0.03 0.97
9089B: Newood, very stony--	Fair Low content of organic matter Too acid Droughty	0.12 0.54 0.89	Fair Depth to saturated zone	0.53	Poor Hard to reclaim (dense layer) Rock fragments Depth to saturated zone Hard to reclaim (rock fragments)	0.00 0.00 0.53 0.92
Lupton-----	Good		Poor Depth to saturated zone	0.00	Poor Depth to saturated zone Content of organic matter	0.00 0.00
9090C: Newood, very stony--	Fair Low content of organic matter Too acid Droughty	0.12 0.54 0.89	Fair Depth to saturated zone	0.53	Poor Hard to reclaim (dense layer) Rock fragments Depth to saturated zone Hard to reclaim (rock fragments)	0.00 0.00 0.53 0.92
Newot, very stony---	Fair Too acid Low content of organic matter Droughty	0.12 0.12 0.90	Fair Slope	0.08	Poor Slope Hard to reclaim (dense layer) Rock fragments Hard to reclaim (rock fragments) Too acid	0.00 0.00 0.00 0.92 0.98
Lupton-----	Good		Poor Depth to saturated zone	0.00	Poor Depth to saturated zone Content of organic matter	0.00 0.00

Table 20b.--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
9092D: Newot, very stony---	Fair		Poor		Poor	
	Too acid	0.12	Slope	0.00	Slope	0.00
	Low content of organic matter	0.12			Hard to reclaim (dense layer)	0.00
	Droughty	0.90			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
9093C: Pence-----	Poor		Fair		Poor	
	Too sandy	0.00	Slope	0.50	Too sandy	0.00
	Low content of organic matter	0.12			Slope	0.00
	Droughty	0.26			Rock fragments	0.00
	Too acid	0.54			Hard to reclaim (rock fragments)	0.32
Padus-----	Fair		Fair		Poor	
	Low content of organic matter	0.12	Slope	0.50	Slope	0.00
	Too acid	0.54			Hard to reclaim (rock fragments)	0.68
					Rock fragments	0.98
					Too acid	0.98
9096C: Newot, very stony---	Fair		Fair		Poor	
	Too acid	0.12	Slope	0.08	Slope	0.00
	Low content of organic matter	0.12			Hard to reclaim (dense layer)	0.00
	Droughty	0.90			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
					Too acid	0.98
Pesabic, very stony	Fair		Poor		Poor	
	Too acid	0.12	Depth to saturated zone	0.00	Hard to reclaim (dense layer)	0.00
	Low content of organic matter	0.60			Depth to saturated zone	0.00
					Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.92
Lupton-----	Good		Poor		Poor	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00
					Content of organic matter	0.00
9097B: Newood, 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
	Droughty	0.89			Depth to saturated zone	0.53
					Hard to reclaim (rock fragments)	0.92

Table 20b.--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
9097B: Padus, very stony---	Fair Low content of organic matter Too acid	0.12 0.54	Good		Fair Hard to reclaim (rock fragments) Rock fragments Too acid	0.68 0.98 0.98
9098A: Oesterle-----	Fair Too acid Low content of organic matter	0.12 0.12	Poor Depth to saturated zone	0.00	Poor Depth to saturated zone Rock fragments Hard to reclaim (rock fragments)	0.00 0.12 0.68
9099B: Antigo-----	Fair Too acid Low content of organic matter	0.12 0.12	Good		Fair Hard to reclaim (rock fragments)	0.68
9197C: Pelissier-----	Poor Too sandy Too acid Low content of organic matter Droughty	0.00 0.12 0.12 0.30	Fair Slope	0.50	Poor Too sandy Rock fragments Hard to reclaim (rock fragments) Slope Too acid	0.00 0.00 0.00 0.00 0.98
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		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
22A: Comstock-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
	Restricted permeability	0.41	Too acid Restricted permeability	0.31 0.31	Too acid Restricted permeability	0.31 0.31
24A: Poskin-----	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.08	Too acid	0.31	Too acid	0.31
43B: Antigo-----	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
	Too acid	0.08	Too acid	0.31	Too acid Too steep for surface application	0.31 0.08
43C: Antigo-----	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
	Slope	0.37	Slope	0.37	Too steep for surface application	1.00
	Too acid	0.08	Too acid	0.31	Too steep for sprinkler application	0.60
					Too acid	0.31
43D: Antigo-----	Very limited Slope	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00	Too steep for surface application	1.00
	Too acid	0.08	Too acid	0.31	Too steep for sprinkler application	1.00
					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		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
48B: Brill-----	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.08	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application	1.00 1.00 0.31 0.08
57B: Spencer-----	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 0.84 0.08	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 0.71 0.31	Very limited Depth to saturated zone Restricted permeability Too acid Too steep for surface application	1.00 0.71 0.31 0.08
59A: Almena-----	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 0.84 0.08	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 0.71 0.31	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 0.71 0.31
63B: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 0.41 0.08	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.31 0.31	Very limited Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 0.31 0.31 0.08
63C: Crystal Lake-----	Very limited Depth to saturated zone Restricted permeability Too acid Slope	1.00 0.41 0.08 0.04	Very limited Depth to saturated zone Too acid Restricted permeability Slope	1.00 0.31 0.31 0.04	Very limited Too steep for surface application Depth to saturated zone Too acid Restricted permeability Too steep for sprinkler application	1.00 1.00 0.31 0.31 0.22

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
63D: Crystal Lake-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Too steep for surface application	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Too steep for sprinkler application	1.00
	Restricted permeability	0.41	Too acid	0.31	Depth to saturated zone	0.86
	Too acid	0.08	Restricted permeability	0.31	Too acid	0.31
					Restricted permeability	0.31
63E: Crystal Lake-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Too steep for surface application	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Too steep for sprinkler application	1.00
	Restricted permeability	0.41	Too acid	0.31	Depth to saturated zone	0.86
	Too acid	0.08	Restricted permeability	0.31	Too acid	0.31
					Restricted permeability	0.31
77A: Auburndale-----	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	0.84	Restricted permeability	0.71	Restricted permeability	0.71
	Leaching	0.70	Too acid	0.31	Too acid	0.31
	Too acid	0.08				
182B: Padus-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Too acid	0.08	Too acid	0.31	Too acid	0.31
182C: Padus-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	0.37	Slope	0.37	Too steep for surface application	1.00
	Too acid	0.08	Too acid	0.31	Too steep for sprinkler application	0.60
					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		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
182D: Padus-----	Very limited		Very limited		Very limited	
	Slope	1.00	Filtering	1.00	Filtering	1.00
	Filtering capacity	1.00	capacity		capacity	
	Too acid	0.08	Slope	1.00	Too steep for surface	1.00
			Too acid	0.31	application	
					Too steep for sprinkler	1.00
					application	
					Too acid	0.31
192A: Worcester-----	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.08	Too acid	0.31	Too acid	0.31
	Droughty	0.04	Droughty	0.04	Droughty	0.04
193A: Minocqua-----	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	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
	Leaching	0.70	Too acid	0.07	Too acid	0.07
	Too acid	0.02				
215B: Pence-----	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to dense layer	1.00	Droughty	0.74	Droughty	0.74
	Droughty	0.74	Too acid	0.31	Too acid	0.31
	Too acid	0.08				
215C: Pence-----	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to dense layer	1.00	Droughty	0.74	Too steep for surface	1.00
	Droughty	0.74	Slope	0.37	application	
	Slope	0.37	Too acid	0.31	Droughty	0.74
	Too acid	0.08			Too steep for sprinkler	0.60
					application	
					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		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
215D: Pence-----	Very limited		Very limited		Very limited	
	Slope	1.00	Filtering	1.00	Filtering	1.00
	Filtering	1.00	capacity		capacity	
	Depth to dense	1.00	Slope	1.00	Too steep for	1.00
	layer		Droughty	0.74	surface	
	Droughty	0.74	Too acid	0.31	application	
	Too acid	0.08			Too steep for	1.00
					sprinkler	
					application	
					Droughty	0.74
					Too acid	0.31
308B: Blackriver-----	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Too acid	0.08	Too acid	0.31	Too acid	0.31
					Too steep for	0.08
					surface	
					application	
315A: Rib-----	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Leaching	0.70	Too acid	0.31	Too acid	0.31
	Too acid	0.08				
324A: Maplehurst-----	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Too acid	0.08	Too acid	0.31	Too acid	0.31
337A: Plover-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Too acid	0.08	Too acid	0.31	Too acid	0.31
345B: Freeon, very stony--	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Depth to dense	1.00	Too acid	1.00	Too acid	1.00
	layer		Restricted	0.60	Restricted	0.60
	Restricted	0.74	permeability		permeability	
	permeability				Too steep for	0.08
	Too acid	0.73			surface	
					application	

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
345B: Sconsin-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.08	Too acid	0.31	Too acid	0.31
					Too steep for surface application	0.08
346E: Newot, very stony---	Very limited		Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00	Too steep for surface application	1.00
	Restricted permeability	1.00	Restricted permeability	1.00	Too steep for sprinkler application	1.00
	Too acid	0.73	Too acid	1.00	Restricted permeability	1.00
	Too stony	0.50	Droughty	0.10	Too acid	1.00
Pence, very stony---	Very limited		Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00	Too steep for surface application	1.00
	Depth to dense layer	1.00	Droughty	0.74	Too steep for sprinkler application	1.00
	Droughty	0.74	Too acid	0.31	Droughty	0.74
	Too stony	0.50			Too acid	0.31
355B: Loyal-----	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 dense layer	1.00	Too acid	0.31	Too acid	0.31
	Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
	Too acid	0.08			Too steep for surface application	0.08
355C: Loyal-----	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 dense layer	1.00	Too acid	0.31	Too steep for surface application	1.00
	Restricted permeability	0.41	Restricted permeability	0.31	Too acid	0.31
	Too acid	0.08	Slope	0.04	Restricted permeability	0.31
	Slope	0.04			Too steep for sprinkler application	0.22

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
356A:						
Withee-----	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	0.41	Too acid	0.31	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31	Restricted permeability	0.31
357A:						
Marshfield-----	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
	Leaching	0.70	Too acid	0.85	Too acid	0.85
	Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
	Too acid	0.27				
408A:						
Lupton-----	Not rated		Not rated		Not rated	
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	Low adsorption	1.00	Ponding	1.00
	Leaching	0.90	Ponding	1.00	Too acid	0.07
	Too acid	0.02	Too acid	0.07		
414A:						
Loxley-----	Not rated		Not rated		Not rated	
Beseman-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Low adsorption	1.00	Too acid	1.00
	Too acid	0.94	Too acid	1.00	Ponding	1.00
	Leaching	0.90	Ponding	1.00	Restricted permeability	0.31
457B:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to dense layer	1.00	Too acid	1.00	Too acid	1.00
	Restricted permeability	0.74	Restricted permeability	0.60	Restricted permeability	0.60
	Too acid	0.73			Too steep for surface application	0.08

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
457B: 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
	Depth to dense layer	1.00	Too acid	0.85	Too acid	0.85
	Restricted permeability	0.74	Restricted permeability	0.60	Restricted permeability	0.60
	Too acid	0.27			Too steep for surface application	0.08
457C: Freeon, very stony--	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to dense layer	1.00	Too acid	1.00	Too acid	1.00
	Restricted permeability	0.74	Restricted permeability	0.60	Too steep for surface application	1.00
	Too acid	0.73	Slope	0.04	Restricted permeability	0.60
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
	Depth to dense layer	1.00	Too acid	0.85	Too steep for surface application	1.00
	Restricted permeability	0.74	Restricted permeability	0.60	Too acid	0.85
	Too acid	0.27	Slope	0.04	Restricted permeability	0.60
	Slope	0.04			Too steep for sprinkler application	0.22
515A: Manitowish-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to dense layer	1.00	Depth to saturated zone	0.86	Depth to saturated zone	0.86
	Depth to saturated zone	0.86	Droughty	0.63	Droughty	0.63
	Droughty	0.63	Too acid	0.31	Too acid	0.31
	Too acid	0.08				
525B: Newood, 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 acid	0.31	Too acid	0.31
	Droughty	0.11	Droughty	0.11	Droughty	0.11
	Too acid	0.08			Too steep for surface application	0.08

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
525B: Padwood-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.41	Too acid	0.31	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31	Restricted permeability	0.31
					Too steep for surface application	0.08
Tipler-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.86
	Too acid	0.08	Too acid	0.31	Too acid	0.31
	Droughty	0.03	Droughty	0.03	Droughty	0.03
527B: Padwood-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.41	Too acid	0.31	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31	Restricted permeability	0.31
537D: Newot, very stony--	Very limited		Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00	Too steep for surface application	1.00
	Restricted permeability	1.00	Restricted permeability	1.00	Too steep for sprinkler application	1.00
	Too acid	0.73	Too acid	1.00	Restricted permeability	1.00
	Too stony	0.50	Droughty	0.10	Too acid	1.00
Newood, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too steep for surface application	1.00
	Too stony	0.50	Slope	0.37	Depth to saturated zone	1.00
	Slope	0.37	Too acid	0.31	Too steep for sprinkler application	0.60
	Droughty	0.11	Droughty	0.11	Too acid	0.31
	Too acid	0.08			Droughty	0.11

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
537D: 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	Low adsorption	1.00	Ponding	1.00
	Leaching	0.90	Ponding	1.00	Too acid	0.07
	Too acid	0.02	Too acid	0.07		
545C: Freeon, very stony--	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to dense layer	1.00	Too acid	1.00	Too acid	1.00
	Restricted permeability	0.74	Restricted permeability	0.60	Too steep for surface application	1.00
	Too acid	0.73	Slope	0.37	Too steep for sprinkler application	0.60
Antigo-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	0.37	Slope	0.37	Too steep for surface application	1.00
	Too acid	0.08	Too acid	0.31	Too steep for sprinkler application	0.60
					Too acid	0.31
555A: Fordum-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Runoff	0.40				
560A: Worwood-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.73	Too acid	1.00	Too acid	1.00
	Restricted permeability	0.41	Restricted permeability	0.31	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		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
571E: Pelissier-----	Very limited		Very limited		Very limited	
	Slope	1.00	Filtering	1.00	Filtering	1.00
	Filtering	1.00	capacity		capacity	
	Depth to dense	1.00	Slope	1.00	Too steep for	1.00
	layer		Too acid	1.00	surface	
	Droughty	0.83	Droughty	0.83	application	
	Too acid	0.73			Too steep for	1.00
					sprinkler	
					application	
					Too acid	1.00
					Droughty	0.83
612A: Magnor, very stony--	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Depth to dense	1.00	Too acid	0.85	Too acid	0.85
	layer		Restricted	0.60	Restricted	0.60
	Restricted	0.74	permeability		permeability	
	permeability					
	Too stony	0.50				
	Too acid	0.27				
Ossmer-----	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Too acid	0.08	Too acid	0.31	Too acid	0.31
623A: Capitola, very stony	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Leaching	0.70	Depth to dense	0.46	Too acid	0.31
	Too stony	0.50	material		Droughty	0.01
	Depth to dense	0.46	Too acid	0.31	Filtering	0.01
	material		Droughty	0.01	capacity	
624A: Ossmer-----	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Too acid	0.08	Too acid	0.31	Too acid	0.31
632B: Aftad-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Restricted	0.41	Too acid	0.31	Too acid	0.31
	permeability		Restricted	0.30	Restricted	0.30
	Too acid	0.08	permeability		permeability	
					Too steep for	0.08
					surface	
					application	

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
637B: Newood, very stony--	Very limited Depth to saturated zone Too stony Droughty Too acid	 1.00 0.50 0.11 0.08	Very limited Depth to saturated zone Too acid Droughty	 1.00 0.31 0.11	Very limited Depth to saturated zone Too acid Droughty Too steep for surface application	 1.00 0.31 0.11 0.08
637C: Newood, very stony--	Very limited Depth to saturated zone Too stony Slope Droughty Too acid	 1.00 0.50 0.37 0.11 0.08	Very limited Depth to saturated zone Slope Too acid Droughty	 1.00 0.37 0.31 0.11	Very limited Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid Droughty	 1.00 1.00 0.60 0.31 0.11
642B: Pesabic, very stony	Very limited Filtering capacity Depth to saturated zone Too acid Too stony Depth to dense material	 1.00 1.00 0.73 0.50 0.06	Very limited Filtering capacity Depth to saturated zone Too acid Depth to dense material Droughty	 1.00 1.00 1.00 0.06 0.01	Very limited Filtering capacity Depth to saturated zone Too acid Droughty	 1.00 1.00 1.00 0.01
Capitola, very stony	Very limited Depth to saturated zone Ponding Leaching Too stony Depth to dense material	 1.00 1.00 0.70 0.50 0.46	Very limited Depth to saturated zone Ponding Depth to dense material Too acid Droughty	 1.00 1.00 0.46 0.31 0.01	Very limited Depth to saturated zone Ponding Too acid Droughty Filtering capacity	 1.00 1.00 0.31 0.01 0.01
Newood, very stony--	Very limited Depth to saturated zone Too stony Droughty Too acid	 1.00 0.50 0.11 0.08	Very limited Depth to saturated zone Too acid Droughty	 1.00 0.31 0.11	Very limited Depth to saturated zone Too acid Droughty Too steep for surface application	 1.00 0.31 0.11 0.08

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
648B: Sconsin-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.08	Too acid	0.31	Too acid	0.31
					Too steep for surface application	0.08
683A: Tipler-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.86
	Too acid	0.08	Too acid	0.31	Too acid	0.31
	Droughty	0.03	Droughty	0.03	Droughty	0.03
737D: Santiago, very stony	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Too steep for surface application	1.00
	Depth to dense layer	1.00	Too acid	0.31	Too steep for sprinkler application	1.00
	Too stony	0.50			Too acid	0.31
	Too acid	0.08				
748A: Brander-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.08	Too acid	0.31	Too acid	0.31
755A: Moppet-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.86	Flooding	1.00	Too acid	1.00
	Too acid	0.62	Too acid	1.00	Depth to saturated zone	0.86
	Flooding	0.60	Depth to saturated zone	0.86	Flooding	0.60
Fordum-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Ponding	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		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
757B:						
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
	Depth to dense layer	1.00	Too acid	0.85	Too acid	0.85
	Restricted permeability	0.74	Restricted permeability	0.60	Restricted permeability	0.60
	Too stony	0.50				
	Too acid	0.27				
Freeon, very stony--	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to dense layer	1.00	Too acid	1.00	Too acid	1.00
	Restricted permeability	0.74	Restricted permeability	0.60	Restricted permeability	0.60
	Too acid	0.73			Too steep for surface application	0.08
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
	Depth to dense layer	1.00	Too acid	0.85	Too acid	0.85
	Restricted permeability	0.74	Restricted permeability	0.60	Restricted permeability	0.60
	Too acid	0.27				
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
	Depth to dense layer	1.00	Too acid	0.85	Too acid	0.85
	Restricted permeability	0.74	Restricted permeability	0.60	Restricted permeability	0.60
	Too acid	0.27			Too steep for surface application	0.08
766A:						
Moppet-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	0.86	Flooding	1.00	Too acid	1.00
	Too acid	0.62	Too acid	1.00	Depth to saturated zone	0.86
	Flooding	0.60	Depth to saturated zone	0.86	Flooding	0.60
822A:						
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
	Restricted permeability	0.41	Too acid	0.31	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31	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		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
822A: 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
	Depth to dense layer	1.00	Too acid	0.85	Too acid	0.85
	Restricted permeability	0.74	Restricted permeability	0.60	Restricted permeability	0.60
	Too stony	0.50				
	Too acid	0.27				
Ossmer-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.08	Too acid	0.31	Too acid	0.31
837E: Newot, very stony---	Very limited		Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00	Too steep for surface application	1.00
	Restricted permeability	1.00	Restricted permeability	1.00	Too steep for sprinkler application	1.00
	Too acid	0.73	Too acid	1.00	Restricted permeability	1.00
	Too stony	0.50	Droughty	0.10	Too acid	1.00
848A: Ribriver-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.08	Too acid	0.31	Too acid	0.31
863B: Crystal Lake-----	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	0.41	Too acid	0.31	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31	Restricted permeability	0.31
					Too steep for surface application	0.08

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
863B: Freeon, very stony--	Very limited Filtering capacity Depth to saturated zone Depth to dense layer Restricted permeability Too acid	1.00 1.00 1.00 0.74 0.73	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability	1.00 1.00 1.00 0.60	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 1.00 1.00 0.60 0.08
Sconsin-----	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.08	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application	1.00 1.00 0.31 0.08
923A: Capitola, very stony	Very limited Depth to saturated zone Ponding Leaching Too stony Depth to dense material	1.00 1.00 0.70 0.50 0.46	Very limited Depth to saturated zone Ponding Depth to dense material Too acid Droughty	1.00 1.00 0.46 0.31 0.01	Very limited Depth to saturated zone Ponding Too acid Droughty Filtering capacity	1.00 1.00 0.31 0.01 0.01
Cebana, very stony--	Very limited Depth to saturated zone Ponding Leaching Too stony Too acid	1.00 1.00 0.70 0.50 0.02	Very limited Depth to saturated zone Ponding Too acid	1.00 1.00 0.07	Very limited Depth to saturated zone Ponding Too acid	1.00 1.00 0.07
956B: Magnor, very stony--	Very limited Depth to saturated zone Depth to dense layer Restricted permeability Too stony Too acid	1.00 1.00 0.74 0.50 0.27	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.60	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.60

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
957B: Freeon, very stony--	Very limited Filtering capacity Depth to saturated zone Depth to dense layer Restricted permeability Too acid	1.00 1.00 1.00 0.74 0.73	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability	1.00 1.00 1.00 0.60	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 1.00 1.00 0.60 0.08
957C: Freeon, very stony--	Very limited Filtering capacity Depth to saturated zone Depth to dense layer Restricted permeability Too acid	1.00 1.00 1.00 0.74 0.73	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability Slope	1.00 1.00 1.00 0.60 0.37	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 1.00 0.60
2015: Pits-----	Not rated		Not rated		Not rated	
3011A: Barronett-----	Very limited Depth to saturated zone Ponding Leaching Restricted permeability Too acid	1.00 1.00 0.70 0.41 0.08	Very limited Depth to saturated zone Ponding Too acid Restricted permeability	1.00 1.00 0.31 0.31	Very limited Depth to saturated zone Ponding Too acid Restricted permeability	1.00 1.00 0.31 0.31
3456A: Magnor, very stony--	Very limited Depth to saturated zone Depth to dense layer Restricted permeability Too stony Too acid	1.00 1.00 0.74 0.50 0.27	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.60	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.60
Magnor-----	Very limited Depth to saturated zone Depth to dense layer Restricted permeability Too acid	1.00 1.00 0.74 0.27	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.60	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.60

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3525C: Newood, very stony--	Very limited Depth to saturated zone Too stony Slope Droughty Too acid	1.00 0.50 0.37 0.11 0.08	Very limited Depth to saturated zone Slope Too acid Droughty	1.00 0.37 0.31 0.11	Very limited Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid Droughty	1.00 1.00 0.60 0.31 0.11
Padwood-----	Very limited Filtering capacity Depth to saturated zone Restricted permeability Slope Too acid	1.00 1.00 0.41 0.37 0.08	Very limited Filtering capacity Depth to saturated zone Slope Too acid Restricted permeability	1.00 1.00 0.37 0.31 0.31	Very limited Filtering capacity Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid	1.00 1.00 1.00 1.00 0.60 0.31
Padus-----	Very limited Filtering capacity Slope Too acid	1.00 0.37 0.08	Very limited Filtering capacity Slope Too acid	1.00 0.37 0.31	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.60 0.31
3546C: Newood, very stony--	Very limited Depth to saturated zone Too stony Slope Droughty Too acid	1.00 0.50 0.37 0.11 0.08	Very limited Depth to saturated zone Slope Too acid Droughty	1.00 0.37 0.31 0.11	Very limited Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid Droughty	1.00 1.00 0.60 0.31 0.11
Pence, very stony---	Very limited Filtering capacity Depth to dense layer Droughty Too stony Slope	1.00 1.00 0.74 0.50 0.37	Very limited Filtering capacity Droughty Slope Too acid	1.00 0.74 0.37 0.31	Very limited Filtering capacity Too steep for surface application Droughty Too steep for sprinkler application Too acid	1.00 1.00 0.74 0.60 0.31

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3556C: Newood, very stony--	Very limited Depth to saturated zone Too stony Slope Droughty Too acid	 1.00 0.50 0.37 0.11 0.08	Very limited Depth to saturated zone Slope Too acid Droughty	 1.00 0.37 0.31 0.11	Very limited Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid Droughty	 1.00 1.00 0.60 0.31 0.11
Magnor, very stony--	Very limited Depth to saturated zone Depth to dense layer Restricted permeability Too stony Too acid	 1.00 1.00 0.74 0.50 0.27	Very limited Depth to saturated zone Too acid Restricted permeability	 1.00 0.85 0.60	Very limited Depth to saturated zone Too acid Restricted permeability	 1.00 0.85 0.60
Cathro-----	Very limited Depth to saturated zone Ponding Leaching Too acid	 1.00 1.00 0.90 0.02	Very limited Depth to saturated zone Low adsorption Ponding Too acid	 1.00 1.00 1.00 0.07	Very limited Depth to saturated zone Ponding Too acid	 1.00 1.00 0.07
3561A: Pesabic, very stony	Very limited Filtering capacity Depth to saturated zone Too acid Too stony	 1.00 1.00 0.73 0.50	Very limited Filtering capacity Depth to saturated zone Too acid	 1.00 1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	 1.00 1.00 1.00
Worwood-----	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability	 1.00 1.00 0.73 0.41	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability	 1.00 1.00 1.00 0.31	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability	 1.00 1.00 1.00 0.31
Worcester-----	Very limited Filtering capacity Depth to saturated zone Too acid Droughty	 1.00 1.00 0.08 0.04	Very limited Filtering capacity Depth to saturated zone Too acid Droughty	 1.00 1.00 0.31 0.04	Very limited Filtering capacity Depth to saturated zone Too acid Droughty	 1.00 1.00 0.31 0.04

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3569C: Newood, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too steep for surface application	1.00
	Too stony	0.50	Too acid	0.31	Depth to saturated zone	1.00
	Droughty	0.11	Droughty	0.11	Too acid	0.31
	Too acid	0.08	Slope	0.04	Too steep for sprinkler application	0.22
	Slope	0.04			Droughty	0.11
Pesabic, very stony	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.73	Too acid	1.00	Too acid	1.00
	Too stony	0.50				
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	Low adsorption	1.00	Ponding	1.00
	Leaching	0.90	Ponding	1.00	Too acid	0.07
	Too acid	0.02	Too acid	0.07		
3666B: Pesabic, very stony	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.73	Too acid	1.00	Too acid	1.00
	Too stony	0.50				
3863C: Crystal Lake-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too steep for surface application	1.00
	Restricted permeability	0.41	Slope	0.37	Depth to saturated zone	1.00
	Slope	0.37	Too acid	0.31	Too steep for sprinkler application	0.60
	Too acid	0.08	Restricted permeability	0.31	Too acid	0.31
					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		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3863C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to dense layer	1.00	Too acid	1.00	Too acid	1.00
	Restricted permeability	0.74	Restricted permeability	0.60	Too steep for surface application	1.00
	Too acid	0.73	Slope	0.37	Too steep for sprinkler application	0.60
Antigo-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	0.37	Slope	0.37	Too steep for surface application	1.00
	Too acid	0.08	Too acid	0.31	Too steep for sprinkler application	0.60
					Too acid	0.31
9052A:						
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	Low adsorption	1.00	Ponding	1.00
	Leaching	0.90	Ponding	1.00	Too acid	0.07
	Too acid	0.02	Too acid	0.07		
Capitola, 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
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Leaching	0.70	Depth to dense material	0.46	Too acid	0.31
	Too stony	0.50	Too acid	0.31	Droughty	0.01
	Depth to dense material	0.46	Droughty	0.01	Filtering capacity	0.01
Lupton-----	Not rated		Not rated		Not rated	
9055A:						
Loxley-----	Not rated		Not rated		Not rated	
9060D:						
Pelissier-----	Very limited		Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00	Too steep for surface application	1.00
	Depth to dense layer	1.00	Too acid	1.00	Too steep for sprinkler application	1.00
	Droughty	0.83	Droughty	0.83	Too acid	1.00
	Too acid	0.73			Droughty	0.83

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9071B: Freeon, very stony--	Very limited Filtering capacity Depth to saturated zone Depth to dense layer Restricted permeability Too acid	1.00 1.00 1.00 0.74 0.73	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability	1.00 1.00 1.00 0.60	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application Restricted permeability	1.00 1.00 1.00 1.00 0.60
9077C: Freeon, very stony--	Very limited Filtering capacity Depth to saturated zone Depth to dense layer Slope Restricted permeability	1.00 1.00 1.00 1.00 0.74	Very limited Filtering capacity Depth to saturated zone Too acid Slope Restricted permeability	1.00 1.00 1.00 1.00 0.60	Very limited Filtering capacity Depth to saturated zone Too steep for surface application Too acid Too steep for sprinkler application	1.00 1.00 1.00 1.00 1.00
9078A: Freeon, very stony--	Very limited Filtering capacity Depth to saturated zone Depth to dense layer Restricted permeability Too acid	1.00 1.00 1.00 0.74 0.73	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability	1.00 1.00 1.00 0.60	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability	1.00 1.00 1.00 0.60
Magnor, very stony--	Very limited Depth to saturated zone Depth to dense layer Restricted permeability Too stony Too acid	1.00 1.00 0.74 0.50 0.27	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.60	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.60
Ossmer-----	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.08	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.31

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9081C: Newot, very stony---	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Restricted permeability	1.00	Restricted permeability	1.00	Too steep for surface application	1.00
	Slope	1.00	Too acid	1.00	Restricted permeability	1.00
	Too acid	0.73	Slope	1.00	Too acid	1.00
	Too stony	0.50	Droughty	0.10	Too steep for sprinkler application	1.00
9082B: Newood, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too steep for surface application	1.00
	Too stony	0.50	Too acid	0.31	Depth to saturated zone	1.00
	Droughty	0.11	Droughty	0.11	Too acid	0.31
	Too acid	0.08			Droughty	0.11
					Too steep for sprinkler application	0.10
9083A: Crystal Lake-----	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	0.41	Too acid	0.31	Too acid	0.31
	Too acid	0.08	Restricted permeability	0.31	Restricted permeability	0.31
9083B: Crystal Lake-----	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too steep for surface application	1.00
	Restricted permeability	0.41	Too acid	0.31	Depth to saturated zone	1.00
	Too acid	0.08	Restricted permeability	0.31	Too acid	0.31
					Restricted permeability	0.31
					Too steep for sprinkler application	0.10
9086A: Freeon, very stony--	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to dense layer	1.00	Too acid	1.00	Too acid	1.00
	Restricted permeability	0.74	Restricted permeability	0.60	Restricted permeability	0.60
	Too acid	0.73				

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9087C:						
Crystal Lake-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Too steep for	1.00
	Depth to	1.00	Depth to	1.00	surface	
	saturated zone		saturated zone		application	
	Restricted	0.41	Too acid	0.31	Too steep for	1.00
	permeability		Restricted	0.31	sprinkler	
	Too acid	0.08	permeability		application	
					Depth to	1.00
					saturated zone	
					Too acid	0.31
					Restricted	0.31
					permeability	
Freeon, very stony--	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Depth to dense	1.00	Too acid	1.00	Too steep for	1.00
	layer		Slope	0.84	surface	
	Slope	0.84	Restricted	0.60	application	
	Restricted	0.74	permeability		Too acid	1.00
	permeability				Too steep for	0.90
					sprinkler	
					application	
Newot, very stony---	Very limited		Very limited		Very limited	
	Filtering	1.00	Filtering	1.00	Filtering	1.00
	capacity		capacity		capacity	
	Restricted	1.00	Restricted	1.00	Too steep for	1.00
	permeability		permeability		surface	
	Slope	1.00	Too acid	1.00	application	
	Too acid	0.73	Slope	1.00	Restricted	1.00
	Too stony	0.50	Droughty	0.10	permeability	
					Too acid	1.00
					Too steep for	1.00
					sprinkler	
					application	
9088A:						
Newood, very stony--	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Too stony	0.50	Too acid	0.31	Too acid	0.31
	Droughty	0.11	Droughty	0.11	Droughty	0.11
	Too acid	0.08			Too steep for	0.08
					surface	
					application	
Capitola, very stony	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Leaching	0.70	Depth to dense	0.46	Too acid	0.31
	Too stony	0.50	material		Droughty	0.01
	Depth to dense	0.46	Too acid	0.31	Filtering	0.01
	material		Droughty	0.01	capacity	

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9089B: Newood, very stony--	Very limited Depth to saturated zone Too stony Droughty Too acid	 1.00 0.50 0.11 0.08	Very limited Depth to saturated zone Too acid Droughty	 1.00 0.31 0.11	Very limited Depth to saturated zone Too steep for surface application Too acid Droughty	 1.00 0.68 0.31 0.11
Lupton-----	Not rated		Not rated		Not rated	
9090C: Newood, very stony--	Very limited Depth to saturated zone Too stony Droughty Too acid	 1.00 0.50 0.11 0.08	Very limited Depth to saturated zone Too acid Droughty	 1.00 0.31 0.11	Very limited Too steep for surface application Depth to saturated zone Too acid Droughty Too steep for sprinkler application	 1.00 1.00 0.31 0.11 0.10
Newot, very stony---	Very limited Slope Filtering capacity Restricted permeability Too acid Too stony	 1.00 1.00 1.00 0.73 0.50	Very limited Filtering capacity Slope Restricted permeability Too acid Droughty	 1.00 1.00 1.00 1.00 0.10	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Restricted permeability Too acid	 1.00 1.00 1.00 1.00 1.00
Lupton-----	Not rated		Not rated		Not rated	
9092D: Newot, very stony---	Very limited Slope Filtering capacity Restricted permeability Too acid Too stony	 1.00 1.00 1.00 0.73 0.50	Very limited Filtering capacity Slope Restricted permeability Too acid Droughty	 1.00 1.00 1.00 1.00 0.10	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Restricted permeability Too acid	 1.00 1.00 1.00 1.00 1.00

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9093C:						
Pence-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00	Too steep for surface application	1.00
	Depth to dense layer	1.00	Droughty	0.74	Too steep for sprinkler application	1.00
	Droughty	0.74	Too acid	0.31	Droughty	0.74
	Too acid	0.08			Too acid	0.31
Padus-----	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Slope	1.00	Slope	1.00	Too steep for surface application	1.00
	Too acid	0.08	Too acid	0.31	Too steep for sprinkler application	1.00
					Too acid	0.31
9096C:						
Newot, very stony---	Very limited		Very limited		Very limited	
	Slope	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Filtering capacity	1.00	Slope	1.00	Too steep for surface application	1.00
	Restricted permeability	1.00	Restricted permeability	1.00	Too steep for sprinkler application	1.00
	Too acid	0.73	Too acid	1.00	Restricted permeability	1.00
	Too stony	0.50	Droughty	0.10	Too acid	1.00
Pesabic, very stony	Very limited		Very limited		Very limited	
	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Too acid	0.73	Too acid	1.00	Too acid	1.00
	Too stony	0.50				
Lupton-----	Not rated		Not rated		Not rated	
9097B:						
Newood, very stony--	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too steep for surface application	1.00
	Too stony	0.50	Too acid	0.31	Depth to saturated zone	1.00
	Droughty	0.11	Droughty	0.11	Too acid	0.31
	Too acid	0.08			Droughty	0.11
					Too steep for sprinkler application	0.10

Table 21a.--Agricultural Waste Management--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9097B: Padus, very stony---	Very limited Filtering capacity Too stony Too acid	1.00 0.50 0.08	Very limited Filtering capacity Too acid	1.00 0.31	Very limited Filtering capacity Too steep for surface application Too acid Too steep for sprinkler application	1.00 1.00 0.31 0.10
9098A: Oesterle-----	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.73	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 1.00
9099B: Antigo-----	Very limited Filtering capacity Too acid	1.00 0.73	Very limited Filtering capacity Too acid	1.00 1.00	Very limited Filtering capacity Too acid Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 0.10
9197C: Pelissier-----	Very limited Filtering capacity Slope Too acid Droughty Leaching	1.00 1.00 0.73 0.70 0.45	Very limited Filtering capacity Too acid Slope Droughty	1.00 1.00 1.00 0.70	Very limited Filtering capacity Too steep for surface application Too acid Too steep for sprinkler application Droughty	1.00 1.00 1.00 1.00 1.00 0.70
M-W: Miscellaneous water	Not rated		Not rated		Not rated	
W: Water-----	Not rated		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	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
22A: Comstock-----	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Very limited Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too acid	0.31
	Too acid	0.31			Restricted permeability	0.21
24A: Poskin-----	Very limited Seepage	1.00	Very limited Depth to saturated zone	1.00	Very limited Filtering capacity	1.00
	Depth to saturated zone	1.00	Restricted permeability	1.00	Depth to saturated zone	1.00
	Too acid	0.31			Too acid	0.31
43B: Antigo-----	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Very limited Filtering capacity	1.00
	Too acid	0.31			Too acid	0.31
					Too steep for surface application	0.08
43C: Antigo-----	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Very limited Filtering capacity	1.00
	Too steep for surface application	0.94	Slope	1.00	Too steep for surface application	1.00
	Too acid	0.31			Too steep for sprinkler application	0.94
					Too acid	0.31
43D: Antigo-----	Very limited Seepage	1.00	Very limited Slope	1.00	Very limited Filtering capacity	1.00
	Too steep for surface application	1.00	Restricted permeability	1.00	Too steep for surface application	1.00
	Too acid	0.31			Too steep for sprinkler application	1.00
					Too acid	0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
48B: Brill-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability	1.00	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application	1.00 1.00 0.31 0.08
57B: Spencer-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability	1.00	Very limited Depth to saturated zone Restricted permeability Too acid Too steep for surface application	1.00 0.53 0.31 0.08
59A: Almena-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability	1.00	Very limited Depth to saturated zone Restricted permeability Too acid	1.00 0.53 0.31
63B: Crystal Lake-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 0.31 0.21 0.08
63C: Crystal Lake-----	Very limited Seepage Depth to saturated zone Too steep for surface application Too acid	1.00 1.00 0.50 0.31	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid Restricted permeability	1.00 1.00 0.50 0.31 0.21

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
63D: Crystal Lake-----	Very limited Seepage Too steep for surface application Depth to saturated zone Too acid	 1.00 1.00 0.86 0.31	Very limited Slope Restricted permeability Depth to saturated zone	 1.00 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler application Depth to saturated zone Too acid Restricted permeability	 1.00 1.00 1.00 0.86 0.31 0.21
63E: Crystal Lake-----	Very limited Seepage Too steep for surface application Depth to saturated zone Too acid	 1.00 1.00 0.86 0.31	Very limited Slope Restricted permeability Depth to saturated zone	 1.00 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler application Depth to saturated zone Too acid Restricted permeability	 1.00 1.00 1.00 0.86 0.31 0.21
77A: Auburndale-----	Very limited Seepage Depth to saturated zone Ponding Too acid	 1.00 1.00 1.00 0.31	Very limited Restricted permeability Ponding	 1.00 1.00	Very limited Depth to saturated zone Ponding Restricted permeability Too acid	 1.00 1.00 0.53 0.31
182B: Padus-----	Very limited Seepage Too acid	 1.00 0.31	Very limited Restricted permeability	 1.00	Very limited Filtering capacity Too acid	 1.00 0.31
182C: Padus-----	Very limited Seepage Too steep for surface application Too acid	 1.00 0.94 0.31	Very limited Restricted permeability Slope	 1.00 1.00	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	 1.00 1.00 0.94 0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
182D: Padus-----	Very limited Seepage Too steep for surface application Too acid	 1.00 1.00 0.31	Very limited Slope Restricted permeability	 1.00 1.00	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	 1.00 1.00 1.00 0.31
192A: Worcester-----	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 0.31	Very limited Depth to saturated zone Restricted permeability	 1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	 1.00 1.00 0.31
193A: Minocqua-----	Very limited Seepage Depth to saturated zone Ponding Too acid	 1.00 1.00 1.00 0.07	Very limited Depth to saturated zone Restricted permeability Ponding	 1.00 1.00 1.00	Very limited Filtering capacity Depth to saturated zone Ponding Too acid	 1.00 1.00 1.00 0.07
215B: Pence-----	Very limited Seepage Too acid	 1.00 0.31	Somewhat limited Restricted permeability	 0.61	Very limited Filtering capacity Too acid	 1.00 0.31
215C: Pence-----	Very limited Seepage Too steep for surface application Too acid	 1.00 0.94 0.31	Very limited Slope Restricted permeability	 1.00 0.61	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	 1.00 1.00 0.94 0.31
215D: Pence-----	Very limited Seepage Too steep for surface application Too acid	 1.00 1.00 0.31	Very limited Slope Restricted permeability	 1.00 0.61	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	 1.00 1.00 1.00 0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
308B: Blackriver-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability	1.00	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application	1.00 1.00 0.31 0.08
315A: Rib-----	Very limited Seepage Depth to saturated zone Ponding Too acid	1.00 1.00 1.00 0.31	Very limited Depth to saturated zone Restricted permeability Ponding	1.00 1.00 1.00 1.00	Very limited Filtering capacity Depth to saturated zone Ponding Too acid	1.00 1.00 1.00 1.00 0.31
324A: Maplehurst-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 1.00 0.31
337A: Plover-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Depth to saturated zone Too acid	1.00 0.31
345B: Freeon, very stony--	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 1.00	Very limited Restricted permeability Too acid	1.00 0.03	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 1.00 1.00 1.00 0.43 0.08
Sconsin-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability	1.00	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application	1.00 1.00 0.31 0.08

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
346E: Newot, very stony---	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 1.00	Very limited Slope Restricted permeability Too acid	1.00 1.00 0.14	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid Restricted permeability	1.00 1.00 1.00 1.00 1.00 0.96
Pence, very stony---	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 0.31	Very limited Slope Restricted permeability	1.00 0.61	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 1.00 1.00 0.31
355B: Loyal-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability	1.00	Very limited Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 0.31 0.21 0.08
355C: Loyal-----	Very limited Seepage Depth to saturated zone Too steep for surface application Too acid	1.00 1.00 0.50 0.31	Very limited Restricted permeability Slope	1.00 1.00	Very limited Depth to saturated zone Too steep for surface application Too steep for sprinkler application Too acid Restricted permeability	1.00 1.00 0.50 0.31 0.21
356A: Withee-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability	1.00	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.31 0.21

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
357A: Marshfield-----	Very limited Seepage Depth to saturated zone Ponding Too acid	 1.00 1.00 1.00 0.85	Very limited Restricted permeability Ponding Too acid	 1.00 1.00 0.03	Very limited Depth to saturated zone Ponding Too acid Restricted permeability	 1.00 1.00 0.85 0.21
408A: Lupton-----	Not rated		Very limited Depth to saturated zone Ponding Restricted permeability	 1.00 1.00 0.69	Not rated	
Cathro-----	Very limited Depth to saturated zone Seepage Too level Ponding Too acid	 1.00 1.00 1.00 1.00 0.07	Very limited Depth to saturated zone Restricted permeability Ponding	 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Too acid	 1.00 1.00 0.07
414A: Loxley-----	Not rated		Very limited Depth to saturated zone Ponding Too acid Restricted permeability	 1.00 1.00 0.77 0.69	Not rated	
Beseman-----	Very limited Seepage Depth to saturated zone Too acid Too level Ponding	 1.00 1.00 1.00 1.00 1.00	Very limited Restricted permeability Depth to saturated zone Ponding	 1.00 1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid Ponding Restricted permeability	 1.00 1.00 1.00 1.00 0.21
457B: Freeon, very stony--	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 1.00	Very limited Restricted permeability Too acid	 1.00 0.03	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability Too steep for surface application	 1.00 1.00 1.00 0.43 0.08

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
457B: Freeon-----	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 0.85	Very limited Restricted permeability Too acid	 1.00 0.03	Very limited Depth to saturated zone Too acid Restricted permeability Too steep for surface application	 1.00 0.85 0.43 0.08
457C: Freeon, very stony--	Very limited Seepage Depth to saturated zone Too acid Too steep for surface application	 1.00 1.00 1.00 0.50	Very limited Restricted permeability Slope Too acid	 1.00 1.00 0.03	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application Too steep for sprinkler application	 1.00 1.00 1.00 1.00 0.50
Freeon-----	Very limited Seepage Depth to saturated zone Too acid Too steep for surface application	 1.00 1.00 0.85 0.50	Very limited Restricted permeability Slope Too acid	 1.00 1.00 0.03	Very limited Depth to saturated zone Too steep for surface application Too acid Too steep for sprinkler application Restricted permeability	 1.00 1.00 0.85 0.50 0.43
515A: Manitowish-----	Very limited Seepage Depth to saturated zone Too acid	 1.00 0.86 0.31	Very limited Depth to saturated zone Restricted permeability	 1.00 0.61	Very limited Filtering capacity Depth to saturated zone Too acid	 1.00 0.86 0.31
525B: Newood, very stony--	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	 1.00 0.01	Very limited Depth to saturated zone Too acid Too steep for surface application	 1.00 0.31 0.08

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
525B: Padwood-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	1.00 1.00 0.01	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 1.00 1.00 0.31 0.21 0.08
Tipler-----	Very limited Seepage Depth to saturated zone Too acid	1.00 0.86 0.31	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 0.86 0.31
527B: Padwood-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	1.00 1.00 0.01	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability	1.00 1.00 1.00 0.31 0.21
537D: Newot, very stony---	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 1.00	Very limited Slope Restricted permeability Too acid	1.00 1.00 0.14	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid Restricted permeability	1.00 1.00 1.00 1.00 1.00 0.96
Newood, very stony--	Very limited Seepage Depth to saturated zone Too steep for surface application Too acid	1.00 1.00 0.94 0.94 0.31	Very limited Restricted permeability Slope Depth to saturated zone	1.00 1.00 1.00 0.01	Very limited Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid	1.00 1.00 0.94 0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
537D: 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
	Seepage	1.00	Restricted permeability	1.00	Ponding	1.00
	Too level	1.00	Ponding	1.00	Too acid	0.07
	Ponding	1.00				
	Too acid	0.07				
545C: Freeon, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted permeability	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Slope	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	0.03	Too acid	1.00
	Too steep for surface application	0.94			Too steep for surface application	1.00
					Too steep for sprinkler application	0.94
					Too steep for sprinkler application	
					Too acid	0.31
Antigo-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted permeability	1.00	Filtering capacity	1.00
	Too steep for surface application	0.94	Slope	1.00	Too steep for surface application	1.00
	Too acid	0.31			Too steep for sprinkler application	0.94
					Too acid	0.31
555A: Fordum-----	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Filtering capacity	1.00
	Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Restricted permeability	1.00	Flooding	1.00
	Ponding	1.00	Ponding	1.00	Ponding	1.00
560A: Worwood-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted permeability	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00			Depth to saturated zone	1.00
	Too acid	1.00			Too acid	1.00
					Restricted permeability	0.21

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
571E: Pelissier-----	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 1.00	Very limited Slope Restricted permeability Too acid	1.00 0.31 0.14	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 1.00 1.00
612A: Magnor, very stony--	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.85	Very limited Restricted permeability Too acid	1.00 0.03	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.43
Ossmer-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.31
623A: Capitola, very stony	Very limited Seepage Depth to saturated zone Ponding Too acid	1.00 1.00 1.00 0.31	Very limited Restricted permeability Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Too acid Filtering capacity	1.00 1.00 0.31 0.01
624A: Ossmer-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.31
632B: Aftad-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 0.31 0.21 0.08

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
637B: Newood, very stony--	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	 1.00 0.01	Very limited Depth to saturated zone Too acid Too steep for surface application	 1.00 0.31 0.08
637C: Newood, very stony--	Very limited Seepage Depth to saturated zone Too steep for surface application Too acid	 1.00 1.00 0.94 0.31	Very limited Restricted permeability Slope Depth to saturated zone	 1.00 1.00 0.01	Very limited Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid	 1.00 1.00 0.94 0.31
642B: Pesabic, very stony	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 1.00	Very limited Restricted permeability	 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	 1.00 1.00 1.00
Capitola, very stony	Very limited Seepage Depth to saturated zone Ponding Too acid	 1.00 1.00 1.00 0.31	Very limited Restricted permeability Ponding	 1.00 1.00	Very limited Depth to saturated zone Ponding Too acid Filtering capacity	 1.00 1.00 0.31 0.01
Newood, very stony--	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	 1.00 0.01	Very limited Depth to saturated zone Too acid Too steep for surface application	 1.00 0.31 0.08
648B: Sconsin-----	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 0.31	Very limited Restricted permeability	 1.00	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application	 1.00 1.00 0.31 0.08

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
683A:						
Tipler-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to	1.00	Filtering	1.00
	Depth to	0.86	saturated zone		capacity	
	saturated zone		Restricted	1.00	Depth to	0.86
	Too acid	0.31	permeability		saturated zone	
					Too acid	0.31
737D:						
Santiago, very stony	Very limited		Very limited		Very limited	
	Seepage	1.00	Slope	1.00	Too steep for	1.00
	Too steep for	1.00	Restricted	1.00	surface	
	surface		permeability		application	
	application				Too steep for	1.00
	Too acid	0.31			sprinkler	
					application	
					Too acid	0.31
748A:						
Brander-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to	1.00	Filtering	1.00
	Depth to	1.00	saturated zone		capacity	
	saturated zone		Restricted	1.00	Depth to	1.00
	Too acid	0.31	permeability		saturated zone	
					Too acid	0.31
755A:						
Moppet-----	Very limited		Very limited		Very limited	
	Flooding	1.00	Depth to	1.00	Filtering	1.00
	Seepage	1.00	saturated zone		capacity	
	Too acid	1.00	Restricted	1.00	Too acid	1.00
	Depth to	0.86	permeability		Depth to	0.86
	saturated zone		Flooding	0.60	saturated zone	
			Too acid	0.03	Flooding	0.60
Fordum-----	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Filtering	1.00
	Seepage	1.00	Depth to	1.00	capacity	
	saturated zone	1.00	saturated zone		Depth to	1.00
	Ponding	1.00	Restricted	1.00	saturated zone	
			permeability		Flooding	1.00
			Ponding	1.00	Ponding	1.00
757B:						
Magnor, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Depth to	1.00
	Depth to	1.00	permeability		saturated zone	
	saturated zone		Too acid	0.03	Too acid	0.85
	Too acid	0.85			Restricted	0.43
					permeability	

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
757B:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Too acid	0.03	Depth to saturated zone	1.00
	Too acid	1.00			Too acid	1.00
					Restricted permeability	0.43
					Too steep for surface application	0.08
Magnor-----	Very limited		Very limited		Very limited	
	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	0.85
	Too acid	0.85			Restricted permeability	0.43
Freeon-----	Very limited		Very limited		Very limited	
	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	0.85
	Too acid	0.85			Restricted permeability	0.43
					Too steep for surface application	0.08
766A:						
Moppet-----	Very limited		Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00	Filtering capacity	1.00
	Seepage	1.00	Restricted permeability	1.00	Too acid	1.00
	Too acid	1.00	Flooding	0.60	Depth to saturated zone	0.86
	Depth to saturated zone	0.86	Too acid	0.03	Flooding	0.60
822A:						
Comstock-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted permeability	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too acid	0.31
	Too acid	0.31			Restricted permeability	0.21
Magnor, very stony--	Very limited		Very limited		Very limited	
	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	0.85
	Too acid	0.85			Restricted permeability	0.43
Ossmer-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Filtering capacity	1.00
	Depth to saturated zone	1.00	Restricted permeability	1.00	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	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
837E: Newot, very stony---	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 1.00	Very limited Slope Restricted permeability Too acid	1.00 1.00 0.14	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid Restricted permeability	1.00 1.00 1.00 1.00 0.96
848A: Ribriver-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Depth to saturated zone Restricted permeability	1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 0.31
863B: Crystal Lake-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 0.31 0.21 0.08
Freeon, very stony--	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 1.00	Very limited Restricted permeability Too acid	1.00 0.03	Very limited Filtering capacity Depth to saturated zone Too acid Restricted permeability Too steep for surface application	1.00 1.00 1.00 0.43 0.08
Sconsin-----	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability	1.00	Very limited Filtering capacity Depth to saturated zone Too acid Too steep for surface application	1.00 1.00 0.31 0.08

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
923A:						
Capitola, very stony	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Depth to	1.00
	Depth to	1.00	permeability		saturated zone	
	saturated zone		Ponding	1.00	Ponding	1.00
	Ponding	1.00			Too acid	0.31
	Too acid	0.31			Filtering	0.01
					capacity	
Cebana, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Depth to	1.00
	Depth to	1.00	permeability		saturated zone	
	saturated zone		Ponding	1.00	Ponding	1.00
	Ponding	1.00			Too acid	0.07
	Too acid	0.07				
956B:						
Magnor, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Depth to	1.00
	Depth to	1.00	permeability		saturated zone	
	saturated zone		Too acid	0.03	Too acid	0.85
	Too acid	0.85			Restricted	0.43
					permeability	
957B:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Depth to	1.00	permeability		capacity	
	saturated zone		Too acid	0.03	Depth to	1.00
	Too acid	1.00			saturated zone	
					Too acid	1.00
					Restricted	0.43
					permeability	
					Too steep for	0.08
					surface	
					application	
957C:						
Freeon, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Depth to	1.00	permeability		capacity	
	saturated zone		Slope	1.00	Depth to	1.00
	Too acid	1.00	Too acid	0.03	saturated zone	
	Too steep for	0.94			Too acid	1.00
	surface				Too steep for	1.00
	application				surface	
					application	
					Too steep for	0.94
					sprinkler	
					application	
2015:						
Pits-----	Not rated		Not rated		Not rated	

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	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	
	Seepage	1.00	Restricted	1.00	Depth to	1.00
	Depth to	1.00	permeability		saturated zone	
	saturated zone		Depth to	1.00	Ponding	1.00
	Ponding	1.00	saturated zone		Too acid	0.31
	Too acid	0.31	Ponding	1.00	Restricted	0.21
					permeability	
3456A:						
Magnor, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Depth to	1.00
	Depth to	1.00	permeability		saturated zone	
	saturated zone		Too acid	0.03	Too acid	0.85
	Too acid	0.85			Restricted	0.43
					permeability	
Magnor-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Depth to	1.00
	Depth to	1.00	permeability		saturated zone	
	saturated zone		Too acid	0.03	Too acid	0.85
	Too acid	0.85			Restricted	0.43
					permeability	
3525C:						
Newood, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Too steep for	1.00
	Depth to	1.00	permeability		surface	
	saturated zone		Slope	1.00	application	
	Too steep for	0.94	Depth to	0.01	Depth to	1.00
	surface		saturated zone		saturated zone	
	application				Too steep for	0.94
	Too acid	0.31			sprinkler	
					application	
					Too acid	0.31
Padwood-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Depth to	1.00	permeability		capacity	
	saturated zone		Slope	1.00	Too steep for	1.00
	Too steep for	0.94	Depth to	0.01	surface	
	surface		saturated zone		application	
	application				Depth to	1.00
	Too acid	0.31			saturated zone	
					Too steep for	0.94
					sprinkler	
					application	
					Too acid	0.31
Padus-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Too steep for	0.94	permeability		capacity	
	surface		Slope	1.00	Too steep for	1.00
	application				surface	
	Too acid	0.31			application	
					Too steep for	0.94
					sprinkler	
					application	
					Too acid	0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3546C: Newood, very stony--	Very limited Seepage Depth to saturated zone Too steep for surface application Too acid	1.00 1.00 0.94 0.31	Very limited Restricted permeability Slope Depth to saturated zone	1.00 1.00 1.00 0.01	Very limited Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid	1.00 1.00 1.00 0.94 0.31
Pence, very stony---	Very limited Seepage Too steep for surface application Too acid	1.00 0.94 0.31	Very limited Slope Restricted permeability	1.00 0.61	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.94 0.31
3556C: Newood, very stony--	Very limited Seepage Depth to saturated zone Too steep for surface application Too acid	1.00 1.00 0.94 0.31	Very limited Restricted permeability Slope Depth to saturated zone	1.00 1.00 1.00 0.01	Very limited Too steep for surface application Depth to saturated zone Too steep for sprinkler application Too acid	1.00 1.00 1.00 0.94 0.31
Magnor, very stony--	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.85	Very limited Restricted permeability Too acid	1.00 0.03	Very limited Depth to saturated zone Too acid Restricted permeability	1.00 0.85 0.43
Cathro-----	Very limited Depth to saturated zone Seepage Too level Ponding Too acid	1.00 1.00 1.00 1.00 0.07	Very limited Depth to saturated zone Restricted permeability Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Too acid	1.00 1.00 0.07
3561A: Pesabic, very stony	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 1.00	Very limited Restricted permeability	1.00	Very limited Filtering capacity Depth to saturated zone Too acid	1.00 1.00 1.00

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3561A:						
Worwood-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Depth to saturated zone	1.00	permeability		capacity	
	Too acid	1.00			Depth to saturated zone	1.00
					Too acid	1.00
					Restricted	0.21
					permeability	
Worcester-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to	1.00	Filtering	1.00
	Depth to saturated zone	1.00	saturated zone		capacity	
	Too acid	0.31	Restricted	1.00	Depth to saturated zone	1.00
			permeability		Too acid	0.31
3569C:						
Newood, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Too steep for	1.00
	Depth to saturated zone	1.00	permeability		surface	
	Too steep for	0.50	Slope	1.00	application	
	surface		Depth to	0.01	Depth to saturated zone	1.00
	application		saturated zone		Too steep for	0.50
	Too acid	0.31			sprinkler	
					application	
					Too acid	0.31
Pesabic, very stony	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Depth to saturated zone	1.00	permeability		capacity	
	Too acid	1.00			Depth to saturated zone	1.00
					Too acid	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
	Seepage	1.00	Restricted	1.00	Ponding	1.00
	Too level	1.00	permeability		Too acid	0.07
	Ponding	1.00	Ponding	1.00		
	Too acid	0.07				
3666B:						
Pesabic, very stony	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Depth to saturated zone	1.00	permeability		capacity	
	Too acid	1.00			Depth to saturated zone	1.00
					Too acid	1.00

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3863C:						
Crystal Lake-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Too steep for	1.00
	Depth to	1.00	permeability		surface	
	saturated zone		Depth to	1.00	application	
	Too steep for	0.94	saturated zone		Depth to	1.00
	surface		Slope	1.00	saturated zone	
	application				Too steep for	0.94
	Too acid	0.31			sprinkler	
					application	
					Too acid	0.31
					Restricted	0.21
					permeability	
Freeon, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Depth to	1.00	permeability		capacity	
	saturated zone		Slope	1.00	Depth to	1.00
	Too acid	1.00	Too acid	0.03	saturated zone	
	Too steep for	0.94			Too acid	1.00
	surface				Too steep for	1.00
	application				application	
					Too steep for	0.94
					sprinkler	
					application	
Antigo-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Too steep for	0.94	permeability		capacity	
	surface		Slope	1.00	Too steep for	1.00
	application				surface	
	Too acid	0.31			application	
					Too steep for	0.94
					sprinkler	
					application	
					Too acid	0.31
9052A:						
Cathro-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Seepage	1.00	Restricted	1.00	Ponding	1.00
	Too level	1.00	permeability		Too acid	0.07
	Ponding	1.00	Ponding	1.00		
	Too acid	0.07				
Capitola, very stony	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Depth to	1.00
	Depth to	1.00	permeability		saturated zone	
	saturated zone		Ponding	1.00	Ponding	1.00
	Ponding	1.00			Too acid	0.31
	Too acid	0.31			Filtering	0.01
					capacity	
Lupton-----	Not rated		Very limited		Not rated	
			Depth to	1.00		
			saturated zone			
			Ponding	1.00		
			Restricted	0.69		
			permeability			

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9055A: Loxley-----	Not rated		Very limited Depth to saturated zone	1.00	Not rated	
			Ponding	1.00		
			Too acid	0.77		
			Restricted permeability	0.69		
9060D: Pelissier-----	Very limited Seepage	1.00	Very limited Slope	1.00	Very limited Filtering capacity	1.00
	Too acid	1.00	Restricted permeability	0.31	Too steep for surface application	1.00
	Too steep for surface application	1.00	Too acid	0.14	Too steep for sprinkler application	1.00
					Too acid	1.00
9071B: Freeon, very stony--	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Very limited Filtering capacity	1.00
	Depth to saturated zone	1.00	Slope	1.00	Depth to saturated zone	1.00
	Too acid	1.00	Too acid	0.03	Too acid	1.00
	Too steep for surface application	0.22			Too steep for surface application	1.00
					Restricted permeability	0.43
9077C: Freeon, very stony--	Very limited Seepage	1.00	Very limited Slope	1.00	Very limited Filtering capacity	1.00
	Depth to saturated zone	1.00	Restricted permeability	1.00	Depth to saturated zone	1.00
	Too steep for surface application	1.00	Too acid	0.03	Too steep for surface application	1.00
	Too acid	1.00			Too steep for sprinkler application	1.00
					Too acid	1.00
9078A: Freeon, very stony--	Very limited Seepage	1.00	Very limited Restricted permeability	1.00	Very limited Filtering capacity	1.00
	Depth to saturated zone	1.00	Too acid	0.03	Depth to saturated zone	1.00
	Too acid	1.00			Too acid	1.00
					Restricted permeability	0.43

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9078A: Magnor, very stony--	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 0.85	Very limited Restricted permeability Too acid	 1.00 0.03	Very limited Depth to saturated zone Too acid Restricted permeability	 1.00 0.85 0.43
Ossmer-----	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 0.31	Very limited Depth to saturated zone Restricted permeability	 1.00 1.00	Very limited Filtering capacity Depth to saturated zone Too acid	 1.00 1.00 0.31
9081C: Newot, very stony--	Very limited Seepage Too steep for surface application Too acid	 1.00 1.00 1.00	Very limited Slope Restricted permeability Too acid	 1.00 1.00 0.14	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid Restricted permeability	 1.00 1.00 1.00 1.00 0.96
9082B: Newood, very stony--	Very limited Seepage Depth to saturated zone Too acid Too steep for surface application	 1.00 1.00 0.31 0.22	Very limited Restricted permeability Slope Depth to saturated zone	 1.00 1.00 0.01	Very limited Too steep for surface application Depth to saturated zone Too acid Too steep for sprinkler application	 1.00 1.00 0.31 0.22
9083A: Crystal Lake-----	Very limited Seepage Depth to saturated zone Too acid	 1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	 1.00 1.00	Very limited Depth to saturated zone Too acid Restricted permeability	 1.00 0.31 0.21

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9083B: Crystal Lake-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Too steep for	1.00
	Depth to	1.00	permeability		surface	
	saturated zone		Slope	1.00	application	
	Too acid	0.31	Depth to		Depth to	1.00
	Too steep for	0.22	saturated zone		saturated zone	
	surface				Too acid	0.31
	application				Too steep for	0.22
					sprinkler	
					application	
					Restricted	0.21
					permeability	
9086A: Freeon, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Depth to	1.00	permeability		capacity	
	saturated zone		Too acid	0.03	Depth to	1.00
	Too acid	1.00			saturated zone	
					Too acid	1.00
					Restricted	0.43
					permeability	
9087C: Crystal Lake-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Slope	1.00	Too steep for	1.00
	Too steep for	1.00	Restricted	1.00	surface	
	surface		permeability		application	
	application		Depth to	1.00	Too steep for	1.00
	Depth to	1.00	saturated zone		sprinkler	
	saturated zone				application	
	Too acid	0.31			Depth to	1.00
					saturated zone	
					Too acid	0.31
					Restricted	0.21
					permeability	
Freeon, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Slope	1.00	Filtering	1.00
	Too acid	1.00	Restricted	1.00	capacity	
	Depth to	1.00	permeability		Depth to	1.00
	saturated zone		Too acid	0.03	saturated zone	
	Too steep for	1.00			Too steep for	1.00
	surface				surface	
	application				application	
					Too steep for	1.00
					sprinkler	
					application	
					Too acid	1.00

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9087C: Newot, very stony---	Very limited Seepage Too acid Too steep for surface application	1.00 1.00 1.00	Very limited Slope Restricted permeability Too acid	1.00 1.00 0.14	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid Restricted permeability	1.00 1.00 1.00 1.00 0.96
9088A: Newood, very stony--	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability Depth to saturated zone	1.00 0.01	Very limited Depth to saturated zone Too acid Too steep for surface application	1.00 0.31 0.08
Capitola, very stony	Very limited Seepage Depth to saturated zone Ponding Too acid	1.00 1.00 1.00 0.31	Very limited Restricted permeability Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Too acid Filtering capacity	1.00 1.00 0.31 0.01
9089B: Newood, very stony--	Very limited Seepage Depth to saturated zone Too acid	1.00 1.00 0.31	Very limited Restricted permeability Slope Depth to saturated zone	1.00 0.50 0.01	Very limited Depth to saturated zone Too steep for surface application Too acid	1.00 0.68 0.31
Lupton-----	Not rated		Very limited Depth to saturated zone Ponding Restricted permeability	1.00 1.00 0.69	Not rated	
9090C: Newood, very stony--	Very limited Seepage Depth to saturated zone Too acid Too steep for surface application	1.00 1.00 0.31 0.22	Very limited Restricted permeability Slope Depth to saturated zone	1.00 1.00 0.01	Very limited Too steep for surface application Depth to saturated zone Too acid Too steep for sprinkler application	1.00 1.00 0.31 0.22

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9090C: Newot, very stony---	Very limited Seepage Too acid Too steep for surface application	1.00 1.00 1.00	Very limited Slope Restricted permeability Too acid	1.00 1.00 0.14	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid Restricted permeability	1.00 1.00 1.00 1.00 0.96
Lupton-----	Not rated		Very limited Depth to saturated zone Ponding Restricted permeability	1.00 1.00 0.69	Not rated	
9092D: Newot, very stony---	Very limited Seepage Too acid Too steep for surface application	1.00 1.00 1.00	Very limited Slope Restricted permeability Too acid	1.00 1.00 0.14	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid Restricted permeability	1.00 1.00 1.00 1.00 0.96
9093C: Pence-----	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 0.31	Very limited Slope Restricted permeability	1.00 0.61	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 1.00 1.00 0.31
Padus-----	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 0.31	Very limited Slope Restricted permeability	1.00 1.00	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 1.00 1.00 0.31

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9096C:						
Newot, very stony---	Very limited		Very limited		Very limited	
	Seepage	1.00	Slope	1.00	Filtering	1.00
	Too acid	1.00	Restricted	1.00	capacity	
	Too steep for	1.00	permeability		Too steep for	1.00
	surface		Too acid	0.14	surface	
	application				application	
					Too steep for	1.00
					sprinkler	
					application	
					Too acid	1.00
					Restricted	0.96
					permeability	
Pesabic, very stony	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Depth to	1.00	permeability		capacity	
	saturated zone				Depth to	1.00
	Too acid	1.00			saturated zone	
					Too acid	1.00
Lupton-----	Not rated		Very limited		Not rated	
			Depth to	1.00		
			saturated zone			
			Ponding	1.00		
			Restricted	0.69		
			permeability			
9097B:						
Newood, very stony--	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Too steep for	1.00
	Depth to	1.00	permeability		surface	
	saturated zone		Slope	1.00	application	
	Too acid	0.31	Depth to	0.01	Depth to	1.00
	Too steep for	0.22	saturated zone		saturated zone	
	surface				Too acid	0.31
	application				Too steep for	0.22
					sprinkler	
					application	
Padus, very stony---	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Too acid	0.31	permeability		capacity	
	Too steep for	0.22	Slope	1.00	Too steep for	1.00
	surface				surface	
	application				application	
					Too acid	0.31
					Too steep for	0.22
					sprinkler	
					application	
9098A:						
Oesterle-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to	1.00	Filtering	1.00
	Too acid	1.00	saturated zone		capacity	
	Depth to	1.00	Restricted	1.00	Depth to	1.00
	saturated zone		permeability		saturated zone	
					Too acid	1.00

Table 21b.--Agricultural Waste Management--Continued

Map symbol and soil name	Overland flow of wastewater		Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9099B:						
Antigo-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Restricted	1.00	Filtering	1.00
	Too acid	1.00	permeability		capacity	
	Too steep for	0.22	Slope	1.00	Too acid	1.00
	surface				Too steep for	1.00
	application				surface	
					application	
					Too steep for	0.22
					sprinkler	
					application	
9197C:						
Pelissier-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Slope	1.00	Filtering	1.00
	Too acid	1.00	Restricted	0.31	capacity	
	Too steep for	1.00	permeability		Too steep for	1.00
	surface		Too acid	0.14	surface	
	application				application	
					Too steep for	1.00
					sprinkler	
					application	
					Too acid	1.00
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water-----	Not rated		Not rated		Not rated	

Table 22.--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
22A: Comstock-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping	1.00 1.00	Very limited Cutbanks cave Slow refill	1.00 0.28
24A: Poskin-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.90	Very limited Cutbanks cave	1.00
43B: Antigo-----	Very limited Seepage	1.00	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
43C: Antigo-----	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
43D: Antigo-----	Very limited Seepage Slope	1.00 0.21	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
48B: Brill-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Depth to water	1.00
57B: Spencer-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.09	Very limited Depth to water	1.00
59A: Almena-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.01	Very limited Depth to water	1.00
63B: Crystal Lake-----	Somewhat limited Seepage	0.72	Very limited Piping Depth to saturated zone	1.00 1.00	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.96 0.24

Table 22.--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
63C: Crystal Lake-----	Somewhat limited Seepage	0.72	Very limited Piping Depth to saturated zone	1.00 1.00	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.96 0.54
63D: Crystal Lake-----	Somewhat limited Seepage Slope	0.72 0.04	Very limited Piping Depth to saturated zone	1.00 0.86	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.96 0.96
63E: Crystal Lake-----	Somewhat limited Seepage Slope	0.72 0.41	Very limited Piping Depth to saturated zone	1.00 0.86	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.96 0.96
77A: Auburndale-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Ponding Seepage	1.00 1.00 1.00 0.09	Very limited Depth to water	1.00
182B: Padus-----	Very limited Seepage	1.00	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
182C: Padus-----	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
182D: Padus-----	Very limited Seepage Slope	1.00 0.21	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
192A: Worcester-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Cutbanks cave	1.00
193A: Minocqua-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.90	Very limited Cutbanks cave	1.00
215B: Pence-----	Very limited Seepage	1.00	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
215C: Pence-----	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00

Table 22.--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
215D: Pence-----	Very limited Seepage Slope	1.00 0.21	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
308B: Blackriver-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.90	Very limited Depth to water	1.00
315A: Rib-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Ponding Seepage	1.00 1.00 1.00 0.90	Very limited Cutbanks cave	1.00
324A: Maplehurst-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.90	Very limited Cutbanks cave	1.00
337A: Plover-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.09	Very limited Cutbanks cave Slow refill	1.00 0.28
345B: Freon, very stony--	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
Sconsin-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Depth to water	1.00
346E: Newot, very stony--	Somewhat limited Seepage Slope	0.72 0.50	Somewhat limited Thin layer Seepage	0.37 0.09	Very limited Depth to water	1.00
Pence, very stony--	Very limited Seepage Slope	1.00 0.50	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
355B: Loyal-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping	1.00 0.86	Very limited Depth to water	1.00

Table 22.--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
355C: Loyal-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping	1.00 0.86	Very limited Depth to water	1.00
356A: Withee-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping	1.00 0.84	Very limited Depth to water	1.00
357A: Marshfield-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Ponding Piping	1.00 1.00 0.61	Very limited Depth to water	1.00
408A: Lupton-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
Cathro-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
414A: Loxley-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
Beseman-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
457B: Freeon, very stony--	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
Freeon-----	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
457C: Freeon, very stony--	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00

Table 22.--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
457C: Freeon-----	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
515A: Manitowish-----	Very limited Seepage	1.00	Somewhat limited Seepage Depth to saturated zone	0.90 0.86	Very limited Cutbanks cave Depth to water	1.00 0.06
525B: Newood, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
Padwood-----	Very limited Seepage	1.00	Very limited Seepage Depth to saturated zone	1.00 1.00	Very limited Depth to water	1.00
Tipler-----	Very limited Seepage	1.00	Somewhat limited Seepage Depth to saturated zone	0.90 0.86	Very limited Cutbanks cave Depth to water	1.00 0.06
527B: Padwood-----	Very limited Seepage	1.00	Very limited Seepage Depth to saturated zone	1.00 1.00	Very limited Depth to water	1.00
537D: Newot, very stony---	Somewhat limited Seepage Slope	0.72 0.28	Somewhat limited Thin layer Seepage	0.37 0.09	Very limited Depth to water	1.00
Newood, very stony--	Somewhat limited Seepage Slope	0.72 0.01	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
Cathro-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
545C: Freeon, very stony--	Somewhat limited Seepage Slope	0.02 0.01	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00

Table 22.--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
545C: Antigo-----	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
555A: Fordum-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.98	Very limited Cutbanks cave	1.00
560A: Worwood-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.09	Very limited Depth to water	1.00
571E: Pelissier-----	Very limited Seepage Slope	1.00 0.50	Somewhat limited Seepage	0.95	Very limited Depth to water	1.00
612A: Magnor, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.10	Very limited Depth to water	1.00
Ossmer-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Cutbanks cave	1.00
623A: Capitola, very stony	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Ponding Thin layer Seepage	1.00 1.00 0.86 0.10	Very limited Depth to water	1.00
624A: Ossmer-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Cutbanks cave	1.00
632B: Aftad-----	Somewhat limited Seepage	0.72	Very limited Piping Depth to saturated zone Seepage	1.00 1.00 0.08	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.28 0.24

Table 22.--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
637B: Newood, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
637C: Newood, very stony--	Somewhat limited Seepage Slope	0.72 0.01	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
642B: Pesabic, very stony	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.66 0.09	Very limited Depth to water	1.00
Capitola, very stony	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Ponding Thin layer Seepage	1.00 1.00 0.86 0.10	Very limited Depth to water	1.00
Newood, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
648B: Sconsin-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Depth to water	1.00
683A: Tipler-----	Very limited Seepage	1.00	Somewhat limited Seepage Depth to saturated zone	0.90 0.86	Very limited Cutbanks cave Depth to water	1.00 0.06
737D: Santiago, very stony	Somewhat limited Seepage Slope	0.72 0.21	Very limited Piping Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
748A: Brander-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.90	Very limited Cutbanks cave	1.00

Table 22.--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
755A:						
Moppet-----	Very limited Seepage	1.00	Somewhat limited Seepage	0.98	Very limited Cutbanks cave	1.00
			Depth to saturated zone	0.86	Depth to water	0.06
Fordum-----	Very limited Seepage	1.00	Very limited Depth to saturated zone	1.00	Very limited Cutbanks cave	1.00
			Ponding	1.00		
			Seepage	0.98		
757B:						
Magnor, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.10		
Freeon, very stony--	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.09		
Magnor-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.10		
Freeon-----	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.09		
766A:						
Moppet-----	Very limited Seepage	1.00	Somewhat limited Seepage	0.98	Very limited Cutbanks cave	1.00
			Depth to saturated zone	0.86	Depth to water	0.06
822A:						
Comstock-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone	1.00	Very limited Cutbanks cave	1.00
			Piping	1.00	Slow refill	0.28
Magnor, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
			Piping	1.00		
			Thin layer	0.37		
			Seepage	0.10		

Table 22.--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
822A: Ossmer-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Cutbanks cave	1.00
837E: Newot, very stony---	Somewhat limited Seepage Slope	0.72 0.50	Somewhat limited Thin layer Seepage	0.37 0.09	Very limited Depth to water	1.00
848A: Ribriver-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.90	Very limited Cutbanks cave	1.00
863B: Crystal Lake-----	Somewhat limited Seepage	0.72	Very limited Piping Depth to saturated zone	1.00 1.00	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.96 0.24
Freeon, very stony--	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
Sconsin-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Depth to water	1.00
923A: Capitola, very stony	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Ponding Thin layer Seepage	1.00 1.00 0.86 0.10	Very limited Depth to water	1.00
Cebana, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Ponding Thin layer Seepage	1.00 1.00 1.00 0.37 0.10	Very limited Depth to water	1.00
956B: Magnor, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.10	Very limited Depth to water	1.00

Table 22.--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
957B: Freeon, very stony--	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
957C: Freeon, very stony--	Somewhat limited Seepage Slope	0.02 0.01	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
2015: Pits-----	Not rated		Not rated		Not rated	
3011A: Barronett-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Ponding	1.00 1.00 1.00	Very limited Cutbanks cave Slow refill	1.00 0.28
3456A: Magnor, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.10	Very limited Depth to water	1.00
Magnor-----	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.10	Very limited Depth to water	1.00
3525C: Newood, very stony--	Somewhat limited Seepage Slope	0.72 0.01	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
Padwood-----	Very limited Seepage Slope	1.00 0.01	Very limited Seepage Depth to saturated zone	1.00 1.00	Very limited Depth to water	1.00
Padus-----	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00

Table 22.--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
3546C: Newood, very stony--	Somewhat limited Seepage Slope	0.72 0.01	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
Pence, very stony---	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
3556C: Newood, very stony--	Somewhat limited Seepage Slope	0.72 0.01	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
Magnor, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.10	Very limited Depth to water	1.00
Cathro-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
3561A: Pesabic, very stony	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.09	Very limited Depth to water	1.00
Worwood-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.09	Very limited Depth to water	1.00
Worcester-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Cutbanks cave	1.00
3569C: Newood, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
Pesabic, very stony	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.09	Very limited Depth to water	1.00
Cathro-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10

Table 22.--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
3666B: Pesabic, very stony	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.09	Very limited Depth to water	1.00
3863C: Crystal Lake-----	Somewhat limited Seepage Slope	0.72 0.01	Very limited Piping Depth to saturated zone	1.00 1.00	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.96 0.54
Freeon, very stony--	Somewhat limited Seepage Slope	0.02 0.01	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
Antigo-----	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
9052A: Cathro-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
Capitola, very stony	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Ponding Thin layer Seepage	1.00 1.00 0.86 0.10	Very limited Depth to water	1.00
Lupton-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
9055A: Loxley-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
9060D: Pelissier-----	Very limited Seepage Slope	1.00 0.64	Somewhat limited Seepage	0.95	Very limited Depth to water	1.00
9071B: Freeon, very stony--	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00

Table 22.--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
9077C: Freeon, very stony--	Somewhat limited Slope Seepage	0.03 0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
9078A: Freeon, very stony--	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00
Magnor, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.10	Very limited Depth to water	1.00
Ossmer-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Cutbanks cave	1.00
9081C: Newot, very stony--	Somewhat limited Seepage Slope	0.72 0.12	Somewhat limited Thin layer Seepage	0.37 0.09	Very limited Depth to water	1.00
9082B: Newood, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
9083A: Crystal Lake-----	Somewhat limited Seepage	0.72	Very limited Piping Depth to saturated zone	1.00 1.00	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.96 0.24
9083B: Crystal Lake-----	Somewhat limited Seepage	0.72	Very limited Piping Depth to saturated zone	1.00 1.00	Very limited Cutbanks cave Slow refill Depth to water	1.00 0.96 0.24
9086A: Freeon, very stony--	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping Thin layer Seepage	1.00 1.00 0.37 0.09	Very limited Depth to water	1.00

Table 22.--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
9087C:						
Crystal Lake-----	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Cutbanks cave	1.00
	Slope	0.03	Depth to saturated zone	1.00	Slow refill	0.96
					Depth to water	0.54
Freeon, very stony--	Somewhat limited		Very limited		Very limited	
	Seepage	0.02	Depth to saturated zone	1.00	Depth to water	1.00
	Slope	0.01	Piping	1.00		
			Thin layer	0.37		
			Seepage	0.09		
Newot, very stony---	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Thin layer	0.37	Depth to water	1.00
	Slope	0.03	Seepage	0.09		
9088A:						
Newood, very stony--	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
			Thin layer	0.37		
			Seepage	0.10		
Capitola, very stony	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
			Ponding	1.00		
			Thin layer	0.86		
			Seepage	0.10		
9089B:						
Newood, very stony--	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
			Thin layer	0.37		
			Seepage	0.10		
Lupton-----	Very limited		Not rated		Somewhat limited	
	Seepage	1.00			Cutbanks cave	0.10
9090C:						
Newood, very stony--	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
			Thin layer	0.37		
			Seepage	0.10		
Newot, very stony---	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Thin layer	0.37	Depth to water	1.00
	Slope	0.21	Seepage	0.09		
Lupton-----	Very limited		Not rated		Somewhat limited	
	Seepage	1.00			Cutbanks cave	0.10
9092D:						
Newot, very stony---	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Thin layer	0.37	Depth to water	1.00
	Slope	0.64	Seepage	0.09		

Table 22.--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
9093C:						
Pence-----	Very limited Seepage Slope	1.00 0.12	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
Padus-----	Very limited Seepage Slope	1.00 0.12	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
9096C:						
Newot, very stony---	Somewhat limited Seepage Slope	0.72 0.21	Somewhat limited Thin layer Seepage	0.37 0.09	Very limited Depth to water	1.00
Pesabic, very stony	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.09	Very limited Depth to water	1.00
Lupton-----	Very limited Seepage	1.00	Not rated		Somewhat limited Cutbanks cave	0.10
9097B:						
Newood, very stony--	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.37 0.10	Very limited Depth to water	1.00
Padus, very stony---	Very limited Seepage	1.00	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
9098A:						
Oesterle-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.90	Very limited Cutbanks cave	1.00
9099B:						
Antigo-----	Very limited Seepage	1.00	Somewhat limited Seepage	0.90	Very limited Depth to water	1.00
9197C:						
Pelissier-----	Very limited Seepage Slope	1.00 0.12	Somewhat limited Seepage	0.95	Very limited Depth to water	1.00
M-W:						
Miscellaneous water	Not rated		Not rated		Not rated	
W:						
Water-----	Not rated		Not rated		Not rated	

Table 23.--Engineering Index Properties

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	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	20-35	3-15
	8-15	Silt loam	CL-ML, ML, CL	A-4	0	0	98-100	95-100	90-100	85-95	20-30	3-10
	15-21	Silt loam, silty clay loam	CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	25-35	8-15
	21-34	Silt loam, silty clay loam	CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	25-40	9-20
	34-44	Stratified silt loam to very fine sand	ML, CL, CL-ML	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10
	44-60	Stratified silt loam to very fine sand	CL-ML, ML, CL	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10
24A: Poskin-----	0-9	Silt loam	CL-ML, CL	A-4	0	0-7	95-100	90-100	80-100	70-95	20-30	5-10
	9-12	Silt loam	CL-ML	A-4	0	0-7	95-100	90-100	80-100	70-95	20-25	4-7
	12-19	Silt loam	CL	A-4, A-6	0	0-7	95-100	90-100	80-100	70-95	25-35	7-15
	19-36	Silt loam	CL	A-4, A-6	0	0-7	95-100	90-100	80-100	70-95	25-35	9-15
	36-39	Sandy loam, loam, gravelly fine sandy loam, very gravelly sandy clay loam	CL-ML, ML, SC-SM, SM	A-1, A-2, A-4	0	0-7	50-100	45-100	30-100	10-90	0-25	NP-7
	39-60	Stratified sand to very gravelly coarse sand	GP, SP, SP-SM, GP-GM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	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-ML, CL	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	SM, ML, SC-SM	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	SM, ML, SC-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-GM, GP, SP-SM, SP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	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-ML, CL	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	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	ML, SC-SM, 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	SP-SM, GP-GM, GP, SP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
43D: 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	ML, CL-ML	A-4	0	0-7	90-100	85-100	70-100	65-85	15-25	2-7
	12-19	Silt loam	CL-ML, CL	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	ML, SM, SC-SM	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, SM, ML	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	SP, GP-GM, SP-SM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
48B: Brill-----	0-7	Silt loam	CL-ML, CL	A-4	0	0-7	95-100	90-100	70-100	65-90	21-30	4-11
	7-11	Silt loam	ML, CL-ML, CL	A-4	0	0-7	95-100	90-100	70-100	65-100	0-30	NP-11
	11-19	Silt loam	CL-ML, CL	A-4	0	0-7	95-100	90-100	70-100	65-90	21-30	4-11
	19-34	Silt loam	CL	A-4, A-6	0	0-7	95-100	90-100	70-100	65-90	28-35	9-15
	34-38	Loam, sandy loam, fine sandy loam, gravelly loam, gravelly sandy loam, gravelly sandy clay loam	SC-SM, ML, SM	A-1, A-2, A-4	0	0-7	50-100	50-100	35-85	15-65	0-30	NP-9
	38-60	Stratified sand to very gravelly coarse sand	GP-GM, GP, SP, SP-SM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
57B:	In											
Spencer-----	0-9	Silt loam	ML, CL-ML, CL	A-4	0	0-5	90-100	85-100	80-100	70-90	21-28	2-13
	9-12	Silt loam	CL, CL-ML, ML	A-4	0	0-5	90-100	85-100	80-100	70-90	21-28	2-13
	12-22	Silt loam	CL	A-4, A-6	0	0-5	90-100	85-100	80-100	70-90	28-35	9-15
	22-30	Silt loam	CL	A-4, A-6	0	0-5	90-100	85-100	80-100	70-90	28-35	9-15
	30-42	Silt loam	CL	A-4, A-6	0	0-5	90-100	85-100	80-100	70-90	28-35	9-15
	42-48	Loam, gravelly sandy loam	SC-SM, SC, CL-ML, CL	A-1-b, A-2-4, A-4	0	0-7	60-100	50-95	35-85	15-70	21-30	4-11
	48-72	Sandy loam, gravelly loam	CL-ML, CL, SC	A-1-b, A-2-4, A-4	0	0-7	60-100	50-95	35-85	15-70	15-30	2-11
59A:												
Almena-----	0-9	Silt loam	ML, CL-ML, CL	A-4	0	0-5	90-100	85-100	80-100	70-90	25-32	2-13
	9-13	Silt loam	CL, CL-ML, ML	A-4	0	0-5	90-100	85-100	80-100	70-90	21-32	2-13
	13-21	Silt loam	CL	A-4, A-6	0	0-5	90-100	85-100	80-100	70-90	25-35	7-15
	21-42	Silt loam	CL	A-4, A-6	0	0-5	90-100	85-100	80-100	70-90	28-35	9-15
	42-60	Sandy loam, gravelly loam, gravelly sandy loam	SM, SC, CL, ML	A-1, A-2, A-4	0	0-7	60-100	50-95	35-85	15-70	15-30	2-11
63B:												
Crystal Lake----	0-8	Silt loam	ML, CL-ML, CL	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	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-ML, ML, CL	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	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-ML, CL, ML	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
63D:												
Crystal Lake----	0-8	Silt loam	CL-ML, ML, CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	8-12	Silt loam	ML, CL, CL-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	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
63E:												
Crystal Lake----	0-8	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	8-12	Silt loam	CL, ML, CL-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	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
77A:												
Auburndale-----	0-7	Silt loam	CL, ML, CL-ML	A-4, A-6	0	0-5	90-100	85-100	80-100	70-90	0-35	2-15
	7-14	Silt loam	CL-ML, CL, ML	A-4, A-6	0	0-5	90-100	85-100	80-100	70-90	0-30	NP-11
	14-41	Silt loam	CL	A-6	0	0-5	90-100	85-100	80-100	70-90	25-35	10-17
	41-53	Loam, sandy loam, gravelly sandy loam	SC, CL-ML, CL, SC-SM	A-1, A-2, A-4, A-6	0	0-7	60-100	50-95	35-95	15-70	20-30	4-11
	53-60	Sandy loam, gravelly sandy loam, loam	CL-ML, ML, SM, SC-SM	A-1, A-2, A-4	0	0-7	60-100	50-95	35-95	15-70	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
182B: Padus-----	0-2	Sandy loam	SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-50	0-21	NP-4
	2-3	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-23	NP-6
	3-19	Sandy loam, loam, fine sandy loam	SM, SC-SM, SC	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-26	NP-8
	19-26	Sandy loam, gravelly loam, fine sandy loam	SC-SM, SM, SC	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	26-38	Sandy loam, gravelly loam, fine sandy loam	SC, SM, CL-ML, SC-SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	38-60	Stratified sand to very gravelly coarse sand	GP-GM, GP, SP-SM, SP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP
182C: Padus-----	0-2	Sandy loam	SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-50	0-21	NP-4
	2-3	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-23	NP-6
	3-19	Sandy loam, loam, fine sandy loam	SM, SC-SM, SC	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-26	NP-8
	19-26	Sandy loam, gravelly loam, fine sandy loam	SC, SM, SC-SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	26-38	Sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, CL-ML, SC	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	38-60	Stratified sand to very gravelly coarse sand	SP-SM, GP-GM, GP, SP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
182D: Padus-----	0-2	Sandy loam	SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-50	0-21	NP-4
	2-3	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-23	NP-6
	3-19	Sandy loam, loam, fine sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-26	NP-8
	19-26	Sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, SC	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	26-38	Sandy loam, gravelly loam, fine sandy loam	SC-SM, SC, CL-ML, SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	38-60	Stratified sand to very gravelly coarse sand	SP-SM, SP, GP-GM, GP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
192A:												
Worcester-----	0-2	Sandy loam	SM	A-2-4, A-4	0	0-7	80-100	75-100	45-90	25-50	0-26	NP-8
	2-3	Sandy loam, loam, gravelly fine sandy loam	SM, SC-SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	0-26	NP-8
	3-6	Sandy loam, loam, gravelly fine sandy loam	SC, SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	0-26	NP-8
	6-16	Sandy loam, loam, gravelly fine sandy loam	SC, SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	0-26	NP-8
	16-20	Sandy loam, loamy sand, gravelly loam	SC, SC-SM, CL-ML, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	18-28	3-9
	20-32	Sandy loam, fine sandy loam, gravelly loam	CL-ML, SM, SC-SM, SC	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	18-28	3-9
	32-39	Gravelly loamy sand, very gravelly coarse sand	SM, GM	A-1-a, A-2-4, A-3	0	0-7	45-100	40-95	20-70	0-25	0-18	NP-3
	39-60	Stratified sand to very gravelly coarse sand	SP-SM, SP, GP, GP-GM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
193A:												
Minocqua-----	0-4	Muck	PT	A-8	0	0	100	100	---	---	---	---
	4-15	Silt loam, loam, sandy loam, fine sandy loam, very fine sandy loam	SC, SM, CL, ML	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	SM, CL, ML, SC	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	SP, GP, GP-GM, SP-SM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
215B: Pence-----	0-3	Sandy loam	SM	A-4	0	0-15	80-100	75-100	50-85	20-50	0-21	NP-4
	3-8	Sandy loam, loam, fine sandy loam, loamy sand	SC-SM, SM	A-2-4, A-4	0	0-15	80-100	75-100	45-95	15-55	0-25	NP-7
	8-15	Gravelly sandy loam, sandy loam, loam, fine sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0	0-15	55-100	50-100	30-95	15-55	0-25	NP-7
	15-21	Gravelly coarse sand, loamy sand, sand, loamy fine sand	SM, GP-GM, GM, SP-SM	A-1-b, A-3	0	0-15	45-100	40-95	20-70	2-30	0-14	NP
	21-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP
215C: Pence-----	0-3	Sandy loam	SM	A-4	0	0-15	80-100	75-100	50-85	20-50	0-21	NP-4
	3-8	Sandy loam, loam, fine sandy loam, loamy sand	SM, SC-SM	A-2-4, A-4	0	0-15	80-100	75-100	45-95	15-55	0-25	NP-7
	8-15	Gravelly sandy loam, sandy loam, loam, fine sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0	0-15	55-100	50-100	30-95	15-55	0-25	NP-7
	15-21	Gravelly coarse sand, loamy sand, sand, loamy fine sand	SP-SM, SM, GP-GM, GM	A-1-b, A-3	0	0-15	45-100	40-95	20-70	2-30	0-14	NP
	21-60	Stratified sand to very gravelly coarse sand	SP-SM, SP, GP-GM, GP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
215D: Pence-----	0-3	Sandy loam	SM	A-4	0	0-15	80-100	75-100	50-85	20-50	0-21	NP-4
	3-8	Sandy loam, loam, fine sandy loam, loamy sand	SM, SC-SM	A-2-4, A-4	0	0-15	80-100	75-100	45-95	15-55	0-25	NP-7
	8-15	Gravelly sandy loam, sandy loam, loam, fine sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0	0-15	55-100	50-100	30-95	15-55	0-25	NP-7
	15-21	Gravelly coarse sand, loamy sand, sand, loamy fine sand	SP-SM, GM, SM, GP-GM	A-1-b, A-3	0	0-15	45-100	40-95	20-70	2-30	0-14	NP
	21-60	Stratified sand to very gravelly coarse sand	SP-SM, SP, GP-GM, GP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP
308B: Blackriver-----	0-9	Silt loam	CL, CL-ML	A-4	0	0-7	95-100	90-100	90-100	75-100	23-27	7-9
	9-18	Silt loam	CL, CL-ML	A-4	0	0-7	95-100	90-100	90-100	75-100	23-30	7-11
	18-25	Silt loam	CL, CL-ML	A-4, A-6	0	0-7	95-100	90-100	90-100	75-100	25-32	7-13
	25-48	Silt loam	CL	A-4, A-6	0	0-7	95-100	90-100	90-100	75-100	28-34	9-14
	48-52	Sandy loam, gravelly fine sandy loam, very gravelly sandy clay loam, loam	GM, ML, SM, CL-ML	A-1-b, A-2-4, A-4	0	0-15	50-100	45-100	25-95	15-80	0-25	NP-7
	52-60	Stratified sand to very gravelly coarse sand	GP-GM, SP, SP-SM, GP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
315A:												
Rib-----	0-7	Silt loam	CL-ML, CL	A-4, A-6	0	0-7	95-100	90-100	90-100	85-100	20-30	4-11
	7-10	Silt loam	CL-ML	A-4	0	0-7	95-100	90-100	90-100	85-100	20-25	4-7
	10-32	Silt loam, silty clay loam	CL	A-6	0	0-7	95-100	90-100	90-100	85-100	30-40	10-20
	32-35	Loam, gravelly loam, sandy loam	SM, SC, ML, CL	A-1, A-2, A-4, A-6	0	0-7	55-100	45-100	35-90	20-75	17-40	1-20
	35-37	Gravelly loamy sand, loamy sand, loamy coarse sand	GP-GM, SP-SM, GM, SM	A-1-b, A-3	0	0-7	30-100	25-100	25-75	5-30	0-14	NP
	37-60	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
324A:												
Maplehurst-----	0-9	Silt loam	CL	A-4	0	0-7	95-100	90-100	90-100	85-100	23-27	7-9
	9-16	Silt loam	CL	A-4, A-6	0	0-7	95-100	90-100	90-100	85-95	23-30	7-11
	16-25	Silt loam	CL	A-4, A-6	0	0-7	95-100	90-100	90-100	85-95	25-32	7-13
	25-44	Silt loam	CL	A-4, A-6	0	0-7	95-100	90-100	90-100	85-95	28-34	9-14
	44-47	Loam, sandy loam, gravelly fine sandy loam, very gravelly sandy clay loam	CL-ML, ML, SM, GM	A-1-b, A-2-4, A-4	0	0-15	50-100	45-100	25-95	15-80	0-25	NP-7
	47-60	Stratified sand to very gravelly coarse sand	GP-GM, GP, SP-SM, SP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
337A:												
Plover-----	0-10	Fine sandy loam	SM, ML	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	SC-SM, SM, ML, CL-ML	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	SC-SM, ML, CL-ML, 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	SC-SM, ML, CL-ML, 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, SM, SC-SM	A-4	0	0	95-100	90-100	60-95	35-75	0-25	NP-7
345B:												
Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	SM, SC, ML, CL	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
345B: Sconsin-----	0-4	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	18-25	3-7
	4-5	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	5-10	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	10-18	Silt loam	ML, CL-ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	18-27	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	27-34	Loam, gravelly sandy loam, very gravelly fine sandy loam	ML, SM, SC, CL	A-1-b, A-2, A-4	0	0-7	60-100	55-95	30-90	20-75	0-28	NP-9
	34-38	Sandy loam, gravelly loam, very gravelly fine sandy loam	SM, SC, ML, CL	A-1-b, A-2, A-4	0	0-7	60-100	55-95	30-90	20-75	18-28	3-9
	38-60	Stratified sand to very gravelly coarse sand	SP, GP-GM, SP-SM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
346E: Newot, very stony-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-4	Sandy loam	SC-SM, SM	A-2-4	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-10	Gravelly sandy loam, gravelly loam, fine sandy loam	ML, SC-SM, SM, CL-ML	A-1-b, A-2-4, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	10-25	Gravelly sandy loam, loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	25-70	10-50	0-25	NP-7
	25-38	Gravelly sandy loam, fine sandy loam	SM, SC, SC-SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	38-55	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC, SC-SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	55-60	Gravelly sandy loam, sandy loam, fine sandy loam	SM, GM, SC-SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
346E: Pence, very stony-----	0-3	Sandy loam	SM	A-4	0	0-15	80-100	75-100	50-85	20-50	0-21	NP-4
	3-8	Sandy loam, loam, fine sandy loam, loamy sand	SC-SM, SM	A-2-4, A-4	0	0-15	80-100	75-100	45-95	15-55	0-25	NP-7
	8-15	Gravelly sandy loam, sandy loam, loam, fine sandy loam	SM, SC-SM	A-1-b, A-2-4, A-4	0	0-15	55-100	50-100	30-95	15-55	0-25	NP-7
	15-21	Gravelly coarse sand, loamy sand, sand, loamy fine sand	SP-SM, SM, GP-GM, GM	A-1-b, A-3	0	0-15	45-100	40-95	20-70	2-30	0-14	NP
	21-60	Stratified sand to very gravelly coarse sand	GP-GM, GP, SP-SM, SP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP
355B: Loyal-----	0-9	Silt loam	CL-ML, CL	A-4	0	0-7	90-100	85-100	80-100	70-90	21-26	4-8
	9-14	Silt loam	CL, CL-ML	A-4	0	0-7	90-100	85-100	80-100	70-90	21-26	4-8
	14-20	Silt loam	CL-ML, CL	A-4, A-6	0	0-7	90-100	85-100	80-100	70-90	23-35	6-15
	20-24	Loam, gravelly sandy clay loam, clay loam	SC, CL	A-2, A-4, A-6	0	0-15	60-100	50-95	30-85	15-65	28-35	9-15
	24-45	Loam, clay loam, gravelly sandy clay loam	SC, CL	A-2, A-4, A-6, A-7-6	0	0-15	60-100	50-95	30-85	15-65	28-44	9-22
	45-60	Loam, gravelly sandy loam, sandy clay loam	CL, SC	A-4, A-6, A-7, A-2	0	0-15	60-100	50-95	30-85	15-65	20-45	7-25

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
355C:												
Loyal-----	0-9	Silt loam	CL-ML, CL	A-4	0	0-7	90-100	85-100	80-100	70-90	21-26	4-8
	9-14	Silt loam	CL-ML, CL	A-4	0	0-7	90-100	85-100	80-100	70-90	21-26	4-8
	14-20	Silt loam	CL-ML, CL	A-4, A-6	0	0-7	90-100	85-100	80-100	70-90	23-35	6-15
	20-24	Loam, gravelly sandy clay loam, clay loam	CL, SC	A-2, A-4, A-6	0	0-15	60-100	50-95	30-85	15-65	28-35	9-15
	24-45	Loam, clay loam, gravelly sandy clay loam	SC, CL	A-2, A-4, A-6, A-7-6	0	0-15	60-100	50-95	30-85	15-65	28-44	9-22
	45-60	Loam, gravelly sandy loam, sandy clay loam	CL, SC	A-4, A-6, A-7, A-2	0	0-15	60-100	50-95	30-85	15-65	20-45	7-25
356A:												
Withee-----	0-9	Silt loam	CL, CL-ML	A-4	0	0-7	90-100	85-100	80-100	70-90	20-30	5-10
	9-14	Silt loam	CL, CL-ML	A-4	0	0-9	90-100	85-100	80-100	70-90	20-30	5-10
	14-18	Silt loam	CL, CL-ML	A-4, A-6	0	0-9	90-100	85-100	80-100	70-90	20-35	5-15
	18-24	Silt loam	CL, CL-ML	A-4, A-6	0	0-9	90-100	85-100	80-100	70-90	20-35	5-15
	24-47	Loam, clay loam, gravelly sandy clay loam	SC, CL	A-2, A-4, A-6, A-7-6	0	0-15	60-100	50-95	30-85	15-65	28-44	9-22
	47-60	Loam, gravelly sandy loam, sandy clay loam	CL, SC	A-4, A-6, A-7, A-2	0	0-15	60-100	50-95	30-85	15-65	20-45	7-25
357A:												
Marshfield-----	0-9	Silt loam	CL	A-4, A-6	0	0-7	90-100	85-100	80-100	70-90	25-35	7-15
	9-14	Silt loam	CL-ML, ML, CL	A-4, A-6	0	0-7	90-100	85-100	80-100	70-90	18-33	3-14
	14-30	Silt loam, silty clay loam	CL	A-4, A-6, A-7-6	0	0-7	90-100	85-100	80-100	70-90	28-44	9-22
	30-36	Loam, clay loam, gravelly sandy clay loam	CL, SC	A-2, A-4, A-6, A-7-6	0	0-15	60-100	50-95	30-85	15-65	28-44	9-22
	36-60	Loam, gravelly sandy loam, sandy clay loam	SC, CL	A-4, A-6, A-7, A-2	0	0-15	60-100	50-95	30-85	15-65	20-45	7-25

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
408A:												
Lupton-----	0-60	Muck	PT	A-8	0	0	100	100	---	---	---	---
Cathro-----	0-28	Muck	PT	A-8	0	0	100	100	---	---	---	---
	28-49	Loam, silty clay loam, sandy loam	CL-ML, CL, SC, SC-SM	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	4-20
	49-60	Sandy loam, silty clay loam, loam	CL-ML, CL, SC-SM, SC	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	4-20
414A:												
Loxley-----	0-12	Peat	PT	A-8	0	0	100	100	---	---	---	---
	12-60	Muck	PT	A-8	0	0	100	100	---	---	---	---
Beseman-----	0-12	Peat		A-8	0	0	100	100	---	---	---	---
	12-36	Muck	PT	A-8	0	0	100	100	---	---	---	---
	36-60	Silt loam, loam, sandy loam	CL, SC-SM, CL-ML	A-4, A-2-4	0	0-2	80-100	65-100	40-100	25-90	15-30	4-12
457B:												
Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	SM, SC, ML, CL	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	SC-SM, SM, ML, CL-ML	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
457B: Freeon-----	In											
	0-9	Silt loam	ML, CL-ML, CL	A-4	0-2	0-7	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	SC, CL, ML, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	ML, CL-ML, SM, SC-SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7
457C: Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	SC, CL, ML, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	ML, CL-ML, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
457C:												
Freeon-----	0-9	Silt loam	CL, ML, CL-ML	A-4	0-2	0-7	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	ML, SC, SM, CL	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SM, SC-SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7
515A:												
Manitowish-----	0-3	Sandy loam	SM	A-4	0	0-15	80-100	75-100	50-85	20-50	0-21	NP-4
	3-4	Sandy loam, loam, gravelly fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0-15	55-100	50-100	35-95	15-55	0-25	NP-7
	4-16	Sandy loam, loam, gravelly fine sandy loam	SM, SC-SM	A-2-4, A-4	0	0-15	55-100	50-100	35-95	15-55	0-25	NP-7
	16-19	Loamy coarse sand, gravelly loamy sand, sand	SM, SC-SM, GM, GC-GM	A-1, A-2, A-3	0	0-15	45-100	40-95	20-70	0-25	0-25	NP-6
	19-60	Stratified sand to very gravelly coarse sand	SP-SM, SP, GP-GM, GP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
525B: Newood, very stony-----	0-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	SM, CL-ML, SC-SM, ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, SC-SM, SM, ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	SM, SC-SM, GM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	GC-GM, SM, SC-SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	SC-SM, GM, SC, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SC, SC- SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC-SM, GC-GM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
525B: Padwood-----	0-4	Sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	80-100	75-100	45-80	20-50	0-25	NP-7
	4-5	Sandy loam, gravelly fine sandy loam, loam	CL-ML, SM, SC-SM, ML	A-2-4, A-4, A-1-b	0	0-7	80-100	75-100	45-95	20-80	0-25	NP-7
	5-15	Sandy loam, loam, gravelly fine sandy loam	CL-ML, SC-SM, ML, SM	A-1-b, A-2-4, A-4	0	0-7	80-100	75-100	45-95	20-80	0-25	NP-7
	15-27	Gravelly sandy loam, sandy loam, loam, gravelly fine sandy loam	SM, SC-SM, ML, CL-ML	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	30-95	15-80	0-25	NP-7
	27-36	Gravelly loamy sand, loamy fine sand	SM, GP, SP, GM	A-1-a, A-2-4, A-3	0	0-7	30-100	25-100	7-75	1-35	0-14	NP
	36-50	Fine sand, sand, very gravelly coarse sand	GM, SM, SP, GP	A-1-a, A-2-4, A-3	0	0-7	30-98	25-95	7-70	1-25	0-14	NP
	50-70	Stratified fine sand to silt loam	SM, SC-SM, ML, CL-ML	A-2-4, A-4	0	0	100	100	65-95	20-85	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
525B: Tipler-----	0-3	Sandy loam	SM	A-2, A-4	0	0-7	80-100	75-100	30-90	20-50	0-20	NP-4
	3-5	Sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0	0-7	55-100	50-100	30-95	15-55	15-20	NP-4
	5-19	Sandy loam, loam, gravelly fine sandy loam	SC-SM, SM, SC	A-2, A-4	0	0-7	55-100	50-100	45-95	15-50	0-25	NP-8
	19-26	Sandy loam, fine sandy loam, gravelly sandy loam, loam	CL-ML, SC-SM, SC, SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-95	15-50	0-30	NP-9
	26-33	Sandy loam, fine sandy loam, gravelly sandy loam, loam	SM, SC-SM, SC, CL-ML	A-1, A-2, A-4	0	0-7	55-100	50-100	30-95	15-50	0-30	NP-9
	33-60	Stratified sand to very gravelly coarse sand	GP-GM, GP, SP-SM, SP	A-3, A-1, A-2	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
527B: Padwood-----	0-4	Sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	80-100	75-100	45-80	20-50	0-25	NP-7
	4-5	Sandy loam, gravelly fine sandy loam, loam	CL-ML, SM, SC-SM, ML	A-2-4, A-4, A-1-b	0	0-7	80-100	75-100	45-95	20-80	0-25	NP-7
	5-15	Sandy loam, loam, gravelly fine sandy loam	SM, CL-ML, ML, SC-SM	A-1-b, A-2-4, A-4	0	0-7	80-100	75-100	45-95	20-80	0-25	NP-7
	15-27	Gravelly sandy loam, sandy loam, loam, gravelly fine sandy loam	ML, CL-ML, SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	30-95	15-80	0-25	NP-7
	27-36	Gravelly loamy sand, loamy fine sand	GM, GP, SM, SP	A-1-a, A-2-4, A-3	0	0-7	30-100	25-100	7-75	1-35	0-14	NP
	36-50	Fine sand, sand, very gravelly coarse sand	SP, SM, GP, GM	A-1-a, A-2-4, A-3	0	0-7	30-98	25-95	7-70	1-25	0-14	NP
	50-70	Stratified fine sand to silt loam	ML, CL-ML, SM, SC-SM	A-2-4, A-4	0	0	100	100	65-95	20-85	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
537D: Newot, very stony-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-4	Sandy loam	SM, SC-SM	A-2-4	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-10	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, ML, CL-ML, SM	A-1-b, A-2-4, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	10-25	Gravelly sandy loam, loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	25-70	10-50	0-25	NP-7
	25-38	Gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	38-55	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC, SC-SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	55-60	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
537D: Newood, very stony-----	0-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, SM, CL-ML, ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	GC-GM, SC-SM, SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GM, GC-GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC-SM, SC, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	SC, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
537D:												
Cathro-----	0-28	Muck	PT	A-8	0	0	100	100	---	---	---	---
	28-49	Loam, silty clay loam, sandy loam	SC, SC-SM, CL-ML, CL	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	4-20
	49-60	Sandy loam, silty clay loam, loam	SC-SM, SC, CL-ML, CL	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	4-20
545C:												
Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	CL-ML, CL, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	SM, SC, ML, CL	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	ML, CL-ML, SM, SC-SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
545C: 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-ML, CL	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	SM, ML, SC-SM	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	ML, SC-SM, 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-GM, SP, SP-SM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
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	SM, SC, ML, CL	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	SC, SM, ML, CL	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	GP, SM, SP	A-1, A-2, A-3	0	0-15	30-100	25-100	7-95	1-50	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
560A: Worwood-----	0-1	Slightly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	1-2	Sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	45-95	20-80	0-25	NP-7
	2-10	Sandy loam, gravelly loam, fine sandy loam	SM, CL-ML, ML, SC-SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	45-95	20-80	0-25	NP-7
	10-15	Sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	45-95	20-80	0-25	NP-7
	15-27	Gravelly sandy loam, sandy loam, fine sandy loam	SM, ML, SC-SM, CL-ML	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	30-95	15-80	0-25	NP-7
	27-38	Gravelly loamy sand, loamy sand	SP, SM, GP, GM	A-1-a, A-2-4, A-3	0	0-7	45-100	40-95	20-70	1-25	0-14	NP
	38-50	Gravelly coarse sand, sand, very gravelly coarse sand	SM, GP, SP, GM	A-1-a, A-3	0	0-7	45-100	40-95	7-70	1-25	0-14	NP
	50-70	Stratified fine sand to silt loam	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0	98-100	97-100	65-95	20-85	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
571E: Pelissier-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-6	Gravelly sandy loam	GM, SC-SM, SM	A-1-b, A-2-4	0	0-7	80-100	75-100	45-95	20-80	15-25	NP-7
	6-10	Gravelly sandy loam, gravelly loamy sand	GM, SC-SM, SM, SP-SM	A-1-b, A-2-4, A-3	0-4	0-7	60-80	50-75	20-60	5-35	15-25	NP-7
	10-21	Very gravelly loamy coarse sand, gravelly coarse sand	GP-GM, GM, SP-SM, SM	A-1, A-2-4, A-3	0-4	0-7	40-75	25-75	5-60	5-25	0-14	NP
	21-80	Very gravelly coarse sand, very gravelly sand, extremely gravelly coarse sand	SP-SM, GP, GP-GM, SP	A-1, A-2, A-3	0-4	0-7	35-85	25-75	5-55	0-10	0-14	NP
612A: Magnor, very stonny-----	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	4-11	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	11-16	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	16-21	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	ML, SC, SM, CL	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	58-60	Fine sandy loam, sandy loam, gravelly fine sandy loam	SM, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	30-60	15-30	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
612A:												
Ossmer-----	0-4	Silt loam	ML, CL-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, ML, CL-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, gravelly sandy loam	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	SM, SC, ML, CL	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	SP, GP-GM, SP-SM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
623A:												
Capitola, very stonny-----	0-5	Muck	PT	A-8	0	0	100	100	---	---	---	---
	5-7	Silt loam, loam	CL-ML, CL	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	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	SC-SM, SM	A-1-b, A-2-4	0-5	0-7	60-100	50-90	30-60	15-35	0-21	NP-4

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
624A:												
Ossmer-----	0-4	Silt loam	ML, CL-ML	A-4	0	0-7	95-100	90-100	70-100	65-85	18-25	3-7
	4-6	Silt loam	ML, CL-ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	6-11	Silt loam	ML, CL, CL-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, gravelly sandy loam	CL, SM, ML, SC	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, SM, SC, ML	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	SP-SM, SP, GP-GM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
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	SM, CL-ML, ML, SC-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	SM, SC, ML, CL	A-4	0	0	95-100	90-100	65-95	40-75	18-26	NP-8
	41-60	Stratified fine sand to silt	ML, SC-SM, SM, CL-ML	A-4	0	0	95-100	90-100	60-95	35-75	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
637B: Newood, very stony-----	0-4	Sandy loam	SM, SC-SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, SM, ML, SC-SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, ML, CL-ML, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	SM, GC-GM, GM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GM, SM, SC-SM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	SC-SM, GM, GC-GM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC-SM, SC, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SC, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SC-SM, SM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
637C: Newood, very stony-----	0-4	Sandy loam	SM, SC-SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	SM, SC-SM, GC-GM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GC-GM, GM, SM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC-SM, SC, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, GM, SC, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC-SM, GM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
642B: Pesabic, very stony-----	0-3	Moderately decomposed plant material	---	---	0	0	100	100	---	---	---	---
	3-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-16	Sandy loam, fine sandy loam, loam, gravelly sandy loam	SC-SM, ML, CL-ML, SM	A-1, A-2, A-4	0-5	0-7	75-100	50-90	40-85	20-70	0-25	NP-7
	16-30	Sandy loam, fine sandy loam, loam, gravelly loamy sand	SC-SM, SM, SC	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-28	NP-9
	30-39	Sandy loam, fine sandy loam, gravelly loamy sand	SC, SM, SC-SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-28	NP-9
	39-53	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC-SM, SC	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-10
	53-84	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-28	NP-9
Capitola, very stony-----	0-5	Muck	PT	A-8	0	0	100	100	---	---	---	---
	5-7	Silt loam, loam	CL-ML, CL	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	SM, SC, ML, CL	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	SM, SC	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 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
642B: Newood, very stony-----	0-4	Sandy loam	SM, SC-SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, SM, ML, CL-ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GC-GM, SC-SM, SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	GC-GM, GM, SM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	SC-SM, SC, GM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	SC, SC-SM, SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
648B:												
Sconsin-----	0-4	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	18-25	3-7
	4-5	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	5-10	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	10-18	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	18-27	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	27-34	Loam, gravelly sandy loam, very gravelly fine sandy loam	SM, SC, ML, CL	A-1-b, A-2, A-4	0	0-7	60-100	55-95	30-90	20-75	0-28	NP-9
	34-38	Sandy loam, gravelly loam, very gravelly fine sandy loam	SM, SC, ML, CL	A-1-b, A-2, A-4	0	0-7	60-100	55-95	30-90	20-75	18-28	3-9
	38-60	Stratified sand to very gravelly coarse sand	SP, GP-GM, SP-SM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
683A:												
Tipler-----	0-3	Sandy loam	SM	A-2, A-4	0	0-7	80-100	75-100	30-90	20-50	0-20	NP-4
	3-5	Sandy loam, gravelly fine sandy loam, loam	SC-SM, SM	A-2, A-4	0	0-7	55-100	50-100	30-95	15-55	15-20	NP-4
	5-19	Sandy loam, loam, gravelly fine sandy loam	SM, SC, SC-SM	A-2, A-4	0	0-7	55-100	50-100	45-95	15-50	0-25	NP-8
	19-26	Sandy loam, fine sandy loam, gravelly sandy loam, loam	CL-ML, SM, SC-SM, SC	A-1, A-2, A-4	0	0-7	55-100	50-100	30-95	15-50	0-30	NP-9
	26-33	Sandy loam, fine sandy loam, gravelly sandy loam, loam	CL-ML, SC, SC-SM, SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-95	15-50	0-30	NP-9
	33-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-3, A-1, A-2	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
737D: Santiago, very stony-----	0-4	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-25	NP-8
	4-16	Silt loam	CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-25	NP-7
	16-22	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-25	NP-9
	22-44	Sandy loam, gravelly fine sandy loam, fine sandy loam, loam	SC, SM	A-1, A-2	0-5	0-7	60-100	50-90	30-90	15-35	0-25	NP-9
	44-60	Sandy loam, gravelly sandy loam, fine sandy loam, loam	SC, SM	A-1, A-2	0-5	0-7	60-100	50-90	30-90	15-35	0-25	NP-8
748A: Brander-----	0-10	Silt loam	CL, CL-ML	A-4	0	0-7	95-100	90-100	85-95	80-90	20-30	4-11
	10-17	Silt loam	CL-ML, CL	A-4	0	0-7	95-100	90-100	85-95	80-90	20-30	4-11
	17-22	Silt loam	CL	A-4, A-6	0	0-7	95-100	90-100	85-95	80-90	28-36	9-16
	22-32	Silt loam	CL	A-4, A-6	0	0-7	95-100	90-100	85-95	80-90	28-36	9-16
	32-35	Gravelly loam, sandy loam, very gravelly sandy loam	CL, GM, ML, SC	A-1-b, A-2-4, A-4	0	0-7	50-100	45-100	25-95	15-80	0-30	NP-11
	35-60	Stratified sand to very gravelly coarse sand	SP-SM, GP-GM, GP, SP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
755A: Moppet-----	0-4	Fine sandy loam	SC-SM, CL-ML, CL, SC	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	SC, CL, ML, 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

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
755A: Fordum-----	0-6	Silt loam	CL-ML, ML, CL	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	SC, SM, ML, CL	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	SM, CL, SC, ML	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	GP, SM, SP	A-1, A-2, A-3	0	0-15	30-100	25-100	7-95	1-50	0-14	NP
757B: Magnor, very stony-----	0-4	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	4-11	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	11-16	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	16-21	Silt loam	CL-ML, CL, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	SM, SC, ML, CL	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	ML, CL, SC, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	58-60	Fine sandy loam, sandy loam, gravelly fine sandy loam	SM, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	30-60	15-30	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
757B: Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	ML, SC-SM, SM, CL-ML	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7
Magnor-----	0-8	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	8-11	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	11-16	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	16-21	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	ML, SC, SM, CL	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	SC, SM, CL, ML	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	58-60	Fine sandy loam, sandy loam, gravelly fine sandy loam	SM, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	30-60	15-30	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
757B:												
Freeon-----	0-9	Silt loam	CL-ML, ML, CL	A-4	0-2	0-7	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	ML, CL, SC, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	CL-ML, SC-SM, ML, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7
766A:												
Moppet-----	0-4	Fine sandy loam	CL-ML, SC, SC-SM, CL	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	SM, SC, CL, ML	A-4	0	0	100	100	75-100	40-85	18-28	3-9
	10-39	Fine sandy loam, loam, silt loam	SC, ML, CL, SM	A-4	0	0	100	100	75-100	40-85	18-28	3-9
	39-60	Gravelly sand, fine sand, loamy fine sand	SP-SM, SP, SM	A-4, A-2-4, A-1-b	0	0	55-100	50-100	15-95	2-50	15-21	NP-4

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
822A:												
Comstock-----	0-8	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	20-35	3-15
	8-15	Silt loam	CL, CL-ML, ML	A-4	0	0	98-100	95-100	90-100	85-95	20-30	3-10
	15-21	Silt loam, silty clay loam	CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	25-35	8-15
	21-34	Silt loam, silty clay loam	CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	25-40	9-20
	34-44	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
	44-60	Stratified silt loam to very fine sand	CL-ML, ML, CL	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10
Magnor, very stonny-----	0-4	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	4-11	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	11-16	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	16-21	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	ML, SC, SM, CL	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	SM, SC, ML, CL	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
822A: Ossmer-----	In											
	0-4	Silt loam	ML, CL-ML	A-4	0	0-7	95-100	90-100	70-100	65-85	18-25	3-7
	4-6	Silt loam	ML, CL-ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	6-11	Silt loam	ML, CL-ML, CL	A-4	0	0-7	95-100	90-100	70-100	65-85	15-28	NP-9
	11-26	Silt loam	CL-ML, CL, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	15-28	NP-9
	26-34	Loam, gravelly sandy loam	ML, CL, SM, SC	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	SM, SC, ML, CL	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	SP-SM, SP, GP-GM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
837E: Newot, very stony-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-4	Sandy loam	SM, SC-SM	A-2-4	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-10	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, SM, ML, CL-ML	A-1-b, A-2-4, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	10-25	Gravelly sandy loam, loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	25-70	10-50	0-25	NP-7
	25-38	Gravelly sandy loam, fine sandy loam	SM, SC-SM, SC	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	38-55	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC-SM, SC	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	55-60	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
848A:												
Ribriver-----	0-5	Silt loam	CL, CL-ML	A-4	0	0-7	95-100	90-100	85-95	80-90	20-30	4-11
	5-10	Silt loam	CL, CL-ML	A-4	0	0-7	95-100	90-100	85-95	80-90	20-30	4-11
	10-17	Silt loam	CL	A-6	0	0-7	95-100	90-100	85-95	80-90	28-36	9-16
	17-24	Silt loam	CL	A-6	0	0-7	95-100	90-100	85-95	80-90	28-36	9-16
	24-45	Silt loam	CL	A-6	0	0-7	95-100	90-100	85-95	80-90	28-36	9-16
	45-48	Gravelly sandy loam, very gravelly loam, sandy loam, gravelly fine sandy loam	CL, SC, GM, ML	A-1-b, A-2-4, A-4	0	0-15	50-100	45-100	25-95	15-80	0-30	NP-11
	48-60	Stratified sand to very gravelly coarse sand	GP-GM, SP, SP-SM, GP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP
863B:												
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	ML, CL, CL-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	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	ML, CL-ML, CL	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
863B: Freeon, very stony-----	In											
	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	CL-ML, CL, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	CL, SC, ML, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	SM, CL-ML, ML, SC-SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7
Sconsin-----	0-4	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	18-25	3-7
	4-5	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	5-10	Silt loam	ML, CL-ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	10-18	Silt loam	ML, CL-ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	18-27	Silt loam	CL-ML, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	27-34	Loam, gravelly sandy loam, very gravelly fine sandy loam	ML, SM, CL, SC	A-1-b, A-2, A-4	0	0-7	60-100	55-95	30-90	20-75	0-28	NP-9
	34-38	Sandy loam, gravelly loam, very gravelly fine sandy loam	CL, ML, SC, SM	A-1-b, A-2, A-4	0	0-7	60-100	55-95	30-90	20-75	18-28	3-9
	38-60	Stratified sand to very gravelly coarse sand	SP, SP-SM, GP-GM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
923A: Capitola, very stony-----	0-5	Muck	PT	A-8	0	0	100	100	---	---	---	---
	5-7	Silt loam, loam	CL-ML, CL	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	SM, CL, ML, SC	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	SM, SC	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	SC-SM, SM	A-1-b, A-2-4	0-5	0-7	60-100	50-90	30-60	15-35	0-21	NP-4
Cebana, very stony-----	0-8	Silt loam	CL-ML, CL	A-4	0-2	0-5	95-100	90-100	80-100	70-90	23-26	6-8
	8-13	Silt loam	CL, ML	A-4	0-2	0-5	95-100	90-100	80-100	70-90	18-27	3-9
	13-27	Silt loam	CL, ML	A-4	0-2	0-5	95-100	90-100	80-100	70-90	18-27	3-9
	27-49	Loam, fine sandy loam, gravelly sandy loam	SC	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	21-30	4-11
	49-67	Sandy loam, fine sandy loam, gravelly sandy loam	SM	A-2, A-1	0-5	0-7	60-100	50-90	30-60	15-35	12-21	NP-4
	67-80	Sandy loam, fine sandy loam, gravelly sandy loam, gravelly fine sandy loam	SM	A-1, A-2	0-5	0-7	60-100	50-90	30-60	15-35	12-21	NP-4

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
956B: Magnor, very stony-----	0-4	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	4-11	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	11-16	Silt loam	CL-ML, CL, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	16-21	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	SC, ML, CL, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	SM, SC, CL, ML	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	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	0-25	NP-7
	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
957B: Freeon, very stony-----	1-5	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	SC, CL, ML, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	CL-ML, SC-SM, SM, ML	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
957C: Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	ML, SM, SC, CL	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7
2015. Pits												
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-ML, ML, CL	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	ML, CL-ML, CL	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3456A: Magnor, very stony-----	0-4	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	4-11	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	11-16	Silt loam	CL-ML, ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	16-21	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	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	0-25	NP-7
Magnor-----	0-8	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	8-11	Silt loam	CL-ML, CL, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	11-16	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	16-21	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	CL, SC, SM, ML	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	58-60	Fine sandy loam, sandy loam, gravelly fine sandy loam	SM, SC-SM	A-1, A-2	0-5	0-7	55-100	50-90	30-60	15-30	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3525C: Newood, very stony-----	0-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, ML, CL-ML, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GM, SM, SC-SM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	SM, GM, GC-GM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SC, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	SC, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SC-SM, SM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3525C: Padwood-----	0-4	Sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	80-100	75-100	45-80	20-50	0-25	NP-7
	4-5	Sandy loam, gravelly fine sandy loam, loam	ML, SC-SM, SM, CL-ML	A-2-4, A-4, A-1-b	0	0-7	80-100	75-100	45-95	20-80	0-25	NP-7
	5-15	Sandy loam, loam, gravelly fine sandy loam	ML, CL-ML, SM, SC-SM	A-1-b, A-2-4, A-4	0	0-7	80-100	75-100	45-95	20-80	0-25	NP-7
	15-27	Gravelly sandy loam, sandy loam, loam, gravelly fine sandy loam	SC-SM, SM, CL-ML, ML	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	30-95	15-80	0-25	NP-7
	27-36	Gravelly loamy sand, loamy fine sand	GM, GP, SM, SP	A-1-a, A-2-4, A-3	0	0-7	30-100	25-100	7-75	1-35	0-14	NP
	36-50	Fine sand, sand, very gravelly coarse sand	SP, GM, GP, SM	A-1-a, A-2-4, A-3	0	0-7	30-98	25-95	7-70	1-25	0-14	NP
	50-70	Stratified fine sand to silt loam	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0	100	100	65-95	20-85	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3525C: Padus-----	0-2	Sandy loam	SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-50	0-21	NP-4
	2-3	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-23	NP-6
	3-19	Sandy loam, loam, fine sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-26	NP-8
	19-26	Sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, SC	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	26-38	Sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, SC, CL-ML	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	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	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3546C: Newood, very stony-----	0-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, CL-ML, ML, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	GC-GM, SM, SC-SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	SM, SC-SM, GM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	SM, GC-GM, SC-SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SC, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SC, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3546C: Pence, very stony-----	0-3	Sandy loam	SM	A-4	0	0-15	80-100	75-100	50-85	20-50	0-21	NP-4
	3-8	Sandy loam, loam, fine sandy loam, loamy sand	SM, SC-SM	A-2-4, A-4	0	0-15	80-100	75-100	45-95	15-55	0-25	NP-7
	8-15	Gravelly sandy loam, sandy loam, loam, fine sandy loam	SM, SC-SM	A-1-b, A-2-4, A-4	0	0-15	55-100	50-100	30-95	15-55	0-25	NP-7
	15-21	Gravelly coarse sand, loamy sand, sand, loamy fine sand	SP-SM, GM, GP-GM, SM	A-1-b, A-3	0	0-15	45-100	40-95	20-70	2-30	0-14	NP
	21-60	Stratified sand to very gravelly coarse sand	GP, GP-GM, SP, SP-SM	A-2, A-3, A-1	0	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3556C: Newood, very stony-----	0-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, ML, SM, CL-ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	SC-SM, SM, GM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC, GM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SC, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3556C: 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	0-28	NP-9
	4-11	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	11-16	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	16-21	Silt loam	CL-ML, CL, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	SC, ML, CL, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	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	0-25	NP-7
Cathro-----	0-28	Muck	PT	A-8	0	0	100	100	---	---	---	---
	28-49	Loam, silty clay loam, sandy loam	CL, SC-SM, SC, CL-ML	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	4-20
	49-60	Sandy loam, silty clay loam, loam	SC-SM, CL-ML, CL, SC	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	4-20

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3561A: Pesabic, very stony-----	0-3	Moderately decomposed plant material	---	---	0	0	100	100	---	---	---	---
	3-4	Sandy loam	SM, SC-SM	A-2	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-16	Sandy loam, fine sandy loam, loam, gravelly sandy loam	SC-SM, CL-ML, ML, SM	A-1, A-2, A-4	0-5	0-7	75-100	50-90	40-85	20-70	0-25	NP-7
	16-30	Sandy loam, fine sandy loam, loam, gravelly loamy sand	SC-SM, SM, SC	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-28	NP-9
	30-39	Sandy loam, fine sandy loam, gravelly loamy sand	SM, SC-SM, SC	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-28	NP-9
	39-53	Gravelly sandy loam, sandy loam, fine sandy loam	SC-SM, SM, SC	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-10
	53-84	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-28	NP-9

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3561A: Worwood-----	0-1	Slightly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	1-2	Sandy loam, gravelly loam, fine sandy loam	SC-SM, ML, CL-ML, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	45-95	20-80	0-25	NP-7
	2-10	Sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	45-95	20-80	0-25	NP-7
	10-15	Sandy loam, gravelly loam, fine sandy loam	ML, SC-SM, CL-ML, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	45-95	20-80	0-25	NP-7
	15-27	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	30-95	15-80	0-25	NP-7
	27-38	Gravelly loamy sand, loamy sand	GM, SP, SM, GP	A-1-a, A-2-4, A-3	0	0-7	45-100	40-95	20-70	1-25	0-14	NP
	38-50	Gravelly coarse sand, sand, very gravelly coarse sand	GP, SP, SM, GM	A-1-a, A-3	0	0-7	45-100	40-95	7-70	1-25	0-14	NP
	50-70	Stratified fine sand to silt loam	CL-ML, ML, SM, SC-SM	A-2-4, A-4	0	0	98-100	97-100	65-95	20-85	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3561A: Worcester-----	0-2	Sandy loam	SM	A-2-4, A-4	0	0-7	80-100	75-100	45-90	25-50	0-26	NP-8
	2-3	Sandy loam, loam, gravelly fine sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	0-26	NP-8
	3-6	Sandy loam, loam, gravelly fine sandy loam	SC, SC-SM, SM	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	0-26	NP-8
	6-16	Sandy loam, loam, gravelly fine sandy loam	SM, SC-SM, SC	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	0-26	NP-8
	16-20	Sandy loam, loamy sand, gravelly loam	CL-ML, SC-SM, SM, SC	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	18-28	3-9
	20-32	Sandy loam, fine sandy loam, gravelly loam	SC, SC-SM, SM, CL-ML	A-1-b, A-2-4, A-4	0	0-7	55-100	50-100	35-95	15-55	18-28	3-9
	32-39	Gravelly loamy sand, very gravelly coarse sand	SM, GM	A-1-a, A-2-4, A-3	0	0-7	45-100	40-95	20-70	0-25	0-18	NP-3
	39-60	Stratified sand to very gravelly coarse sand	SP-SM, SP, GP-GM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3569C: Newood, very stony-----	0-4	Sandy loam	SM, SC-SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	SM, ML, CL-ML, SC-SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	SM, SC-SM, GM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	SM, SC-SM, GM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SC, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SC, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3569C: Pesabic, very stony-----	0-3	Moderately decomposed plant material	---	---	0	0	100	100	---	---	---	---
	3-4	Sandy loam	SM, SC-SM	A-2	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-16	Sandy loam, fine sandy loam, loam, gravelly sandy loam	CL-ML, ML, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	75-100	50-90	40-85	20-70	0-25	NP-7
	16-30	Sandy loam, fine sandy loam, loam, gravelly loamy sand	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-28	NP-9
	30-39	Sandy loam, fine sandy loam, gravelly loamy sand	SM, SC, SC-SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-28	NP-9
	39-53	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC, SC-SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-10
	53-84	Gravelly sandy loam, sandy loam, fine sandy loam	SC-SM, SC, SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-28	NP-9
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	4-20
	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	4-20

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3666B: Pesabic, very stony-----	0-3	Moderately decomposed plant material	---	---	0	0	100	100	---	---	---	---
	3-4	Sandy loam	SM, SC-SM	A-2	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-16	Sandy loam, fine sandy loam, loam, gravelly sandy loam	SM, CL-ML, ML, SC-SM	A-1, A-2, A-4	0-5	0-7	75-100	50-90	40-85	20-70	0-25	NP-7
	16-30	Sandy loam, fine sandy loam, loam, gravelly loamy sand	SC-SM, SM, SC	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-28	NP-9
	30-39	Sandy loam, fine sandy loam, gravelly loamy sand	SM, SC-SM, SC	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-28	NP-9
	39-53	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-10
	53-84	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-28	NP-9
3863C: Crystal Lake----	0-8	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	8-12	Silt loam	CL-ML, ML, CL	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	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 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
3863C: Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	CL-ML, CL, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	ML, CL, SC, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	SC-SM, SM, CL-ML, ML	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth In	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
3863C: 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-ML, CL	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	SM, ML, SC-SM	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	ML, SM, SC-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	SP, GP-GM, SP-SM, GP	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP
9052A: Cathro-----												
	0-28	Muck	PT	A-8	0	0	100	100	---	---	---	---
	28-49	Loam, silty clay loam, sandy loam	SC, CL, CL-ML, SC-SM	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	4-20
	49-60	Sandy loam, silty clay loam, loam	SC-SM, CL-ML, SC, CL	A-4, A-6	0	0-5	80-100	65-100	60-100	35-90	20-40	4-20

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9052A: Capitola, very stony-----	0-5	Muck	PT	A-8	0	0	100	100	---	---	---	---
	5-7	Silt loam, loam	CL-ML, CL	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	SM, SC, ML, CL	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	SC-SM, SM	A-1-b, A-2-4	0-5	0-7	60-100	50-90	30-60	15-35	0-21	NP-4
Lupton-----	0-60	Muck	PT	A-8	0	0	100	100	---	---	---	---
9055A: Loxley-----	0-12	Peat	PT	A-8	0	0	100	100	---	---	---	---
	12-60	Muck	PT	A-8	0	0	100	100	---	---	---	---
9060D: Pelissier-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-6	Sandy loam	SC-SM, SM, GM	A-1-b, A-2-4	0	0-10	80-100	75-100	45-95	20-80	15-25	NP-7
	6-10	Gravelly sandy loam, gravelly loamy sand	SP-SM, SC-SM, SM, GM	A-1-b, A-2-4, A-3	0-4	0-10	60-80	50-75	20-60	5-35	15-25	NP-7
	10-21	Very gravelly loamy coarse sand, gravelly coarse sand	SP-SM, GM, SM, GP-GM	A-1, A-2-4, A-3	0-4	0-10	40-75	25-75	5-60	5-25	0-14	NP
	21-80	Very gravelly coarse sand, very gravelly sand, extremely gravelly coarse sand	GP, SP, SP-SM, GP-GM	A-1, A-2, A-3	0-4	0-10	35-65	25-55	5-55	0-10	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9071B: Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	SM, CL, ML, SC	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, CL-ML, ML	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7
9077C: Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	ML, SC, SM, CL	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	ML, SC-SM, CL-ML, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
9078A: Freeon, very stony-----	In											
	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	ML, CL, SM, SC	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7
Magnor, very stony-----	0-4	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	4-11	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	11-16	Silt loam	CL-ML, CL, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	16-21	Silt loam	CL, ML, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	21-39	Sandy loam, fine sandy loam, gravelly sandy loam, loam	SM, SC, ML, CL	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	39-58	Fine sandy loam, sandy loam, gravelly sandy loam, loam	CL, SM, SC, ML	A-1, A-2, A-4	0-5	0-7	55-100	50-90	30-80	15-70	0-28	NP-9
	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9078A: Ossmer-----	0-4	Silt loam	ML, CL-ML	A-4	0	0-7	95-100	90-100	70-100	65-85	18-25	3-7
	4-6	Silt loam	ML, CL-ML	A-4	0	0-7	95-100	90-100	70-100	65-85	0-25	NP-7
	6-11	Silt loam	ML, CL-ML, CL	A-4	0	0-7	95-100	90-100	70-100	65-85	15-28	NP-9
	11-26	Silt loam	CL-ML, CL, ML	A-4	0	0-7	95-100	90-100	70-100	65-85	15-28	NP-9
	26-34	Loam, gravelly sandy loam	ML, SC, CL, SM	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, ML, SC, 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
9081C: Newot, very stony-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-4	Sandy loam	SM, SC-SM	A-2-4	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-10	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, SM, SC-SM, ML	A-1-b, A-2-4, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	10-25	Gravelly sandy loam, loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	25-70	10-50	0-25	NP-7
	25-38	Gravelly sandy loam, fine sandy loam	SC-SM, SC, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	38-55	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC-SM, SC	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	55-60	Gravelly sandy loam, sandy loam, fine sandy loam	SC-SM, GM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9082B: Newood, very stony-----	0-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	SM, SC-SM, GM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GC-GM, SM, SC-SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	SM, SC-SM, GM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	SC, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC-SM, SC, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, SM, GC-GM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9083A: Crystal Lake----	0-4	Silt loam	CL-ML, CL, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	4-12	Silt loam	ML, CL, CL-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	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
9083B: Crystal Lake----	0-4	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	4-12	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	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	ML, CL-ML, CL	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9086A: Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	CL, CL-ML, ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	CL-ML, SC-SM, ML, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7
9087C: Crystal Lake----	0-4	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	98-100	95-100	90-100	85-95	18-30	3-11
	4-12	Silt loam	CL-ML, CL, 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	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, ML, CL-ML	A-4	0	0	98-100	95-100	85-100	65-95	20-30	3-10

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9087C: Freeon, very stony-----	0-1	Slightly decomposed plant material	---	A-8	0	0	100	100	---	---	---	---
	1-5	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	5-9	Silt loam	ML, CL, CL-ML	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	9-13	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-28	NP-9
	13-19	Silt loam	ML, CL-ML, CL	A-4	0-2	0-5	90-100	85-100	80-100	70-90	0-30	NP-10
	19-26	Sandy loam, loamy sand, gravelly loam	CL, ML, SC, SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-30	NP-10
	26-38	Sandy loam, gravelly loam, fine sandy loam	ML, CL-ML, SM, SC-SM	A-1, A-2, A-4	0-5	0-7	60-100	50-90	30-90	15-70	0-25	NP-7
	38-58	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	0-25	NP-7
	58-60	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	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9087C: Newot, very stony-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-4	Sandy loam	SC-SM, SM	A-2-4	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-10	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, SM, ML, CL-ML	A-1-b, A-2-4, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	10-25	Gravelly sandy loam, loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	25-70	10-50	0-25	NP-7
	25-38	Gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	38-55	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	55-60	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9088A: Newood, very stony-----	0-4	Sandy loam	SM, SC-SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, CL-ML, ML, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	SM, SC-SM, GC-GM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GM, SC-SM, SM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	GM, GC-GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC-SM, SC, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SC, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9088A: Capitola, very stony-----	0-5	Muck	PT	A-8	0	0	100	100	---	---	---	---
	5-7	Silt loam, loam	CL-ML, CL	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	SM, SC, ML, CL	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 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9089B: Newood, very stony-----	0-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	ML, CL-ML, SM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	SC-SM, ML, CL-ML, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	GM, SC-SM, SM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GC-GM, SM, SC-SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	GM, GC-GM, SM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SM, SC-SM, SC	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SM, SC-SM, SC	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GM, GC-GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
Lupton-----	0-60	Muck	PT	A-8	0	0	100	100	---	---	---	---

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9090C: Newood, very stony-----	0-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	ML, SM, CL-ML, SC-SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, SM, SC-SM, ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	GM, SM, SC-SM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	SC-SM, SM, GM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	SC-SM, SM, GC-GM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	GM, SC, SM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GC-GM, SC-SM, SM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9090C: Newot, very stony-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-4	Sandy loam	SM, SC-SM	A-2-4	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-10	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, SM, SC-SM, ML	A-1-b, A-2-4, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	10-25	Gravelly sandy loam, loam, fine sandy loam, gravelly loamy sand	SM, SC-SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	25-70	10-50	0-25	NP-7
	25-38	Gravelly sandy loam, fine sandy loam	SM, SC-SM, SC	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	38-55	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	55-60	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
Lupton-----	0-60	Muck	PT	A-8	0	0	100	100	---	---	---	---

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9092D: Newot, very stony-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-4	Sandy loam	SC-SM, SM	A-2-4	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-10	Gravelly sandy loam, gravelly loam, fine sandy loam	ML, CL-ML, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	10-25	Gravelly sandy loam, loam, fine sandy loam, gravelly loamy sand	SM, SC-SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	25-70	10-50	0-25	NP-7
	25-38	Gravelly sandy loam, fine sandy loam	SC-SM, SC, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	38-55	Gravelly sandy loam, sandy loam, fine sandy loam	SC-SM, SM, SC	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	55-60	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC-SM, GM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9093C: Pence-----	0-3	Sandy loam	SM	A-4	0	0-15	80-100	75-100	50-85	20-50	0-21	NP-4
	3-8	Sandy loam, loam, fine sandy loam, loamy sand	SC-SM, SM	A-2-4, A-4	0	0-15	80-100	75-100	45-95	15-55	0-25	NP-7
	8-15	Gravelly sandy loam, sandy loam, loam, fine sandy loam	SC-SM, SM	A-1-b, A-2-4, A-4	0	0-15	55-100	50-100	30-95	15-55	0-25	NP-7
	15-21	Gravelly coarse sand, loamy sand, sand, loamy fine sand	SM, GP-GM, GM, SP-SM	A-1-b, A-3	0	0-15	45-100	40-95	20-70	2-30	0-14	NP
	21-60	Stratified sand to very gravelly coarse sand	SP-SM, SP, GP-GM, GP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP
Padus-----	0-2	Sandy loam	SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-50	0-21	NP-4
	2-3	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-23	NP-6
	3-19	Sandy loam, loam, fine sandy loam	SC, SM, SC-SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-26	NP-8
	19-26	Sandy loam, gravelly loam, fine sandy loam	SC, SM, SC-SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	26-38	Sandy loam, gravelly loam, fine sandy loam	CL-ML, SC, SC-SM, SM	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	38-60	Stratified sand to very gravelly coarse sand	GP, SP-SM, GP-GM, SP	A-1, A-2, A-3	0	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9096C: Newot, very stony-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-4	Sandy loam	SC-SM, SM	A-2-4	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-10	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	10-25	Gravelly sandy loam, loam, fine sandy loam, gravelly loamy sand	SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	25-70	10-50	0-25	NP-7
	25-38	Gravelly sandy loam, fine sandy loam	SC, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	38-55	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9
	55-60	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SC-SM, SM	A-1-b, A-2-4, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-9

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9096C: Pesabic, very stony-----	0-3	Moderately decomposed plant material	---	---	0	0	100	100	---	---	---	---
	3-4	Sandy loam	SM, SC-SM	A-2	0-5	0-7	75-100	70-95	45-65	20-30	0-25	NP-7
	4-16	Sandy loam, fine sandy loam, loam, gravelly sandy loam	SM, SC-SM, ML, CL-ML	A-1, A-2, A-4	0-5	0-7	75-100	50-90	40-85	20-70	0-25	NP-7
	16-30	Sandy loam, fine sandy loam, loam, gravelly loamy sand	SM, SC, SC-SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-28	NP-9
	30-39	Sandy loam, fine sandy loam, gravelly loamy sand	SM, SC-SM, SC	A-1, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-28	NP-9
	39-53	Gravelly sandy loam, sandy loam, fine sandy loam	SM, SC, SC-SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-10
	53-84	Gravelly sandy loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-1, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-28	NP-9
Lupton-----	0-60	Muck	PT	A-8	0	0	100	100	---	---	---	---

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9097B: Newood, very stony-----	0-4	Sandy loam	SC-SM, SM	A-2	0-5	0-7	75-100	70-95	45-65	20-35	0-25	NP-7
	4-5	Gravelly sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, ML, CL-ML	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	5-13	Gravelly sandy loam, gravelly loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	75-100	70-95	45-85	20-70	0-25	NP-7
	13-17	Gravelly sandy loam, fine sandy loam, gravelly loamy sand, loam	SC-SM, SM, GC-GM, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-85	10-70	0-25	NP-7
	17-29	Gravelly sandy loam, fine sandy loam, gravelly loamy sand	GC-GM, GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	25-75	10-50	0-25	NP-7
	29-37	Gravelly sandy loam, fine sandy loam	GM, SC-SM, SM, GC-GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7
	37-46	Gravelly sandy loam, sandy loam, fine sandy loam	GM, SC, SM, SC-SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	46-58	Sandy loam, gravelly sandy loam, fine sandy loam	SM, SC-SM, SC, GM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-30	NP-10
	58-60	Sandy loam, gravelly sandy loam, fine sandy loam	GM, GC-GM, SC-SM, SM	A-1-b, A-2, A-4	0-5	0-7	55-95	50-90	30-75	15-50	0-25	NP-7

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9097B: Padus, very stony-----	0-2	Sandy loam	SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-50	0-21	NP-4
	2-3	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-23	NP-6
	3-19	Sandy loam, loam, fine sandy loam	SM, SC-SM, SC	A-1-b, A-2, A-4	0	0-7	80-100	75-100	30-90	20-60	0-26	NP-8
	19-26	Sandy loam, gravelly loam, fine sandy loam	SM, SC-SM, SC	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	0-28	NP-9
	26-38	Sandy loam, gravelly loam, fine sandy loam	SC-SM, SM, SC, CL-ML	A-1, A-2, A-4	0	0-7	55-100	50-100	30-90	15-55	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	0-15	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9098A: Oesterle-----	0-2	Moderately decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-5	Loam	CL, CL-ML, SC, SC-SM	A-4	0	0-7	80-100	75-100	65-95	45-75	21-26	4-8
	5-13	Fine sandy loam, sandy loam, loam	SC, ML, SM, CL	A-1, A-2, A-4	0	0-7	75-100	70-100	40-95	20-75	18-26	3-8
	13-18	Fine sandy loam, sandy loam, loam	CL, ML, SC, SM	A-1, A-2, A-4	0	0-7	75-100	70-100	40-95	20-75	18-26	3-8
	18-26	Loam, gravelly fine sandy loam, sandy loam	CL, ML, SC, SM	A-1, A-2, A-4	0	0-7	55-100	50-100	25-95	15-60	0-28	NP-9
	26-35	Sandy loam, gravelly fine sandy loam, loam	SM, SC, ML, CL	A-1, A-2, A-4	0	0-7	55-100	50-100	25-95	15-60	0-28	NP-9
	35-44	Loamy sand, gravelly sand, very gravelly loamy coarse sand	GM, GP, SM, SP	A-1, A-2, A-3	0	0-7	30-100	25-100	7-75	1-35	0-14	NP
	44-60	Stratified sand to very gravelly coarse sand	SP-SM, SP, GP, GP-GM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9099B: Antigo-----	0-2	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	2-4	Silt loam	ML, CL-ML	A-4	0	0-7	90-100	85-100	70-100	65-85	15-25	2-7
	4-14	Silt loam	CL-ML, ML	A-4	0	0-7	90-100	85-100	70-100	65-85	15-25	2-7
	14-20	Silt loam	CL, CL-ML	A-4	0	0-7	90-100	85-100	70-100	65-85	20-30	4-9
	20-31	Silt loam	CL, CL-ML	A-4	0	0-7	90-100	85-100	70-100	65-85	20-30	4-9
	31-37	Very gravelly sandy loam, loam, fine sandy loam, gravelly loam, gravelly sandy loam, sandy loam	ML, SC-SM, SM	A-1, A-2, A-4	0	0-7	50-100	50-100	35-85	15-65	0-30	NP-9
	37-40	Loamy sand, gravelly loamy sand, very gravelly loamy sand	SC-SM, SW-SM, SM	A-1, A-2	0	0-7	50-100	45-95	25-75	10-30	0-25	NP-9
	40-60	Stratified sand to very gravelly coarse sand	SP, SP-SM, GP, GP-GM	A-1, A-2, A-3	0	0-7	45-100	40-95	15-65	0-15	0-14	NP

Table 23.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
9197C: Pelissier-----	0-3	Highly decomposed plant material	---	---	0	0	100	100	---	---	---	---
	3-5	Very cobbly sandy loam	SM, GP-GM, GM, SP-SM	A-1, A-2, A-4	0-3	5-25	30-95	30-95	10-40	10-40	0-20	NP-4
	5-13	Very cobbly coarse sandy loam, very cobbly loamy coarse sand	GM, SM, SP-SM	A-1	0-3	5-25	30-70	30-70	15-50	5-25	0-25	NP-4
	13-20	Very cobbly loamy coarse sand, gravelly coarse sand, very cobbly sand	GM, GP, SM, SP	A-1	0-3	5-25	30-70	30-70	10-50	1-25	0-14	NP
	20-60	Very cobbly coarse sand, cobbly coarse sand, gravelly sand	GP, SP	A-1	0-3	5-25	30-70	25-55	5-50	0-10	0-14	NP
	60-80	Very gravelly coarse sand, very gravelly sand, extremely gravelly coarse sand	SP-SM, SP, GP-GM, GP	A-1, A-2, A-3	0-3	0-10	35-65	25-55	5-55	0-10	0-14	NP
M-W. Miscellaneous water												
W. Water												

Table 24.--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	Permeability	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
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			
24A:												
Poskin-----	0-9	13-17	1.35-1.55	0.60-2.00	0.21-0.24	0.0-2.9	2.0-4.0	.37	.37	4	5	56
	9-12	10-15	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	12-19	15-22	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	19-36	18-27	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	36-39	5-25	1.40-1.65	0.60-2.00	0.05-0.22	0.0-2.9	0.0-0.5	.24	.24			
	39-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
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			
43D:												
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			
48B:												
Brill-----	0-7	10-20	1.25-1.45	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37	4	5	56
	7-11	8-20	1.35-1.55	0.60-2.00	0.16-0.22	0.0-2.9	0.0-1.0	.43	.43			
	11-19	10-20	1.40-1.55	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	19-34	18-27	1.50-1.60	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	34-38	5-25	1.55-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			
57B:												
Spencer-----	0-9	9-17	1.20-1.55	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.37	.37	5	5	56
	9-12	9-17	1.30-1.60	0.60-2.00	0.20-0.24	0.0-2.9	0.1-2.0	.43	.43			
	12-22	18-25	1.50-1.65	0.60-2.00	0.18-0.22	3.0-5.9	0.5-1.0	.43	.43			
	22-30	18-25	1.50-1.65	0.60-2.00	0.18-0.22	3.0-5.9	0.5-1.0	.43	.43			
	30-42	18-25	1.50-1.65	0.60-2.00	0.18-0.22	3.0-5.9	0.0-0.5	.43	.43			
	42-48	10-20	1.60-1.85	0.60-2.00	0.07-0.16	0.0-2.9	0.0-0.5	.32	.32			
	48-72	10-20	1.70-1.95	0.06-0.60	0.05-0.15	0.0-2.9	0.0-0.5	.28	.28			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
59A:												
Almena-----	0-9	9-23	1.20-1.55	0.60-2.00	0.22-0.24	0.0-2.9	2.0-5.0	.37	.37	5	5	56
	9-13	7-23	1.30-1.60	0.60-2.00	0.20-0.24	0.0-2.9	0.1-2.0	.43	.37			
	13-21	15-25	1.50-1.65	0.60-2.00	0.18-0.22	3.0-5.9	0.5-1.0	.43	.37			
	21-42	18-27	1.50-1.65	0.60-2.00	0.20-0.22	3.0-5.9	0.0-0.5	.43	.37			
	42-60	10-20	1.70-1.85	0.06-0.60	0.07-0.16	0.0-2.9	0.0-0.5	.28	.28			
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			
63D:												
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			
63E:												
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			
77A:												
Auburndale-----	0-7	6-25	1.35-1.55	0.60-2.00	0.22-0.24	0.0-2.9	4.0-10	.32	.32	5	5	56
	7-14	6-20	1.35-1.60	0.60-2.00	0.20-0.24	0.0-2.9	0.5-3.0	.43	.43			
	14-41	18-27	1.50-1.65	0.60-2.00	0.20-0.22	3.0-5.9	0.1-1.0	.43	.43			
	41-53	8-20	1.60-1.85	0.06-0.60	0.08-0.22	0.0-2.9	0.0-0.5	.32	.32			
	53-60	5-15	1.70-1.95	0.06-0.60	0.08-0.19	0.0-2.9	0.0-0.5	.28	.28			
182B:												
Padus-----	0-2	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	2-3	3-13	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	3-19	5-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.24	.24			
	19-26	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	26-38	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			
182C:												
Padus-----	0-2	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	2-3	3-13	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	3-19	5-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.24	.24			
	19-26	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	26-38	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
182D:												
Padus-----	0-2	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	2-3	3-13	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	3-19	5-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.24	.24			
	19-26	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	26-38	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			
192A:												
Worcester-----	0-2	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	2-3	3-13	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-2.0	.24	.24			
	3-6	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-2.0	.24	.24			
	6-16	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-2.0	.24	.24			
	16-20	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	20-32	8-18	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	32-39	3-8	1.45-1.70	6.00-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.17			
	39-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
193A:												
Minocqua-----	0-4	---	0.15-0.45	2.00-6.00	0.35-0.45	---	30-60	---	---	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			
215B:												
Pence-----	0-3	3-15	1.30-1.70	2.00-6.00	0.11-0.15	0.0-2.9	1.0-3.0	.24	.24	3	3	86
	3-8	3-13	1.35-1.65	0.60-6.00	0.11-0.18	0.0-2.9	0.5-1.0	.24	.24			
	8-15	5-15	1.35-1.45	0.60-6.00	0.10-0.15	0.0-2.9	1.0-2.0	.17	.24			
	15-21	0-6	1.65-1.75	2.00-60	0.05-0.08	0.0-2.9	0.0-0.5	.05	.10			
	21-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
215C:												
Pence-----	0-3	3-15	1.30-1.70	2.00-6.00	0.11-0.15	0.0-2.9	1.0-3.0	.24	.24	3	3	86
	3-8	3-13	1.35-1.65	0.60-6.00	0.11-0.18	0.0-2.9	0.5-1.0	.24	.24			
	8-15	5-15	1.35-1.45	0.60-6.00	0.10-0.15	0.0-2.9	1.0-2.0	.17	.24			
	15-21	0-6	1.65-1.75	2.00-60	0.05-0.08	0.0-2.9	0.0-0.5	.05	.10			
	21-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
215D:												
Pence-----	0-3	3-15	1.30-1.70	2.00-6.00	0.11-0.15	0.0-2.9	1.0-3.0	.24	.24	3	3	86
	3-8	3-13	1.35-1.65	0.60-6.00	0.11-0.18	0.0-2.9	0.5-1.0	.24	.24			
	8-15	5-15	1.35-1.45	0.60-6.00	0.10-0.15	0.0-2.9	1.0-2.0	.17	.24			
	15-21	0-6	1.65-1.75	2.00-60	0.05-0.08	0.0-2.9	0.0-0.5	.05	.10			
	21-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
308B:												
Blackriver-----	0-9	13-17	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	9-18	13-20	1.45-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	18-25	15-22	1.45-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	25-48	18-25	1.45-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	48-52	2-22	1.40-1.75	0.60-6.00	0.08-0.19	0.0-2.9	0.0-0.5	.24	.24			
	52-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
315A:												
Rib-----	0-7	10-20	1.25-1.35	0.60-2.00	0.22-0.28	0.0-2.9	3.0-10	.32	.32	4	5	56
	7-10	10-15	1.45-1.55	0.60-2.00	0.18-0.22	0.0-2.9	0.0-1.0	.43	.43			
	10-32	18-30	1.45-1.55	0.60-2.00	0.18-0.22	3.0-5.9	0.5-1.0	.43	.43			
	32-35	5-25	1.45-1.75	0.60-2.00	0.10-0.19	0.0-2.9	0.0-0.5	.32	.32			
	35-37	2-10	1.65-1.75	2.00-6.00	0.05-0.08	0.0-2.9	0.0-0.5	.10	.15			
	37-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
324A:												
Maplehurst-----	0-9	13-17	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	9-16	10-20	1.45-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	16-25	15-22	1.45-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	25-44	18-24	1.45-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	44-47	2-22	1.40-1.75	0.60-6.00	0.08-0.19	0.0-2.9	0.0-0.5	.24	.24			
	47-60	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	0.60-2.00	0.11-0.22	0.0-2.9	0.0-0.5	.24	.24			
345B:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
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	6-17	1.50-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.32	.32			
	34-38	8-17	1.50-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			
346E:												
Newot, very stony-----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	4	8	0
	2-4	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	4-10	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.20	.28			
	10-25	5-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	25-38	5-15	1.40-1.70	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	38-55	7-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	55-60	6-12	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
Pence, very stony-----	0-3	3-15	1.30-1.70	2.00-6.00	0.11-0.15	0.0-2.9	1.0-3.0	.24	.24	3	3	86
	3-8	3-13	1.35-1.65	0.60-6.00	0.11-0.18	0.0-2.9	0.5-1.0	.24	.24			
	8-15	5-15	1.35-1.45	0.60-6.00	0.10-0.15	0.0-2.9	1.0-2.0	.17	.24			
	15-21	0-6	1.65-1.75	2.00-60	0.05-0.08	0.0-2.9	0.0-0.5	.05	.10			
	21-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
355B:												
Loyal-----	0-9	10-16	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	9-14	10-16	1.55-1.65	0.60-2.00	0.18-0.22	0.0-2.9	0.0-1.0	.43	.43			
	14-20	12-25	1.55-1.65	0.60-2.00	0.18-0.22	0.0-2.9	0.0-0.5	.43	.43			
	20-24	18-30	1.60-1.85	0.20-0.60	0.06-0.16	3.0-5.9	0.0-0.5	.32	.32			
	24-45	18-35	1.60-1.85	0.20-0.60	0.06-0.10	3.0-5.9	0.0-1.0	.32	.32			
	45-60	12-22	1.70-1.95	0.20-0.60	0.04-0.12	0.0-2.9	0.0-0.5	.32	.32			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
355C:												
Loyal-----	0-9	10-16	1.35-1.55	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	9-14	10-16	1.55-1.65	0.60-2.00	0.18-0.22	0.0-2.9	0.0-1.0	.43	.43			
	14-20	12-25	1.55-1.65	0.60-2.00	0.18-0.22	0.0-2.9	0.0-0.5	.43	.43			
	20-24	18-30	1.60-1.85	0.20-0.60	0.06-0.16	3.0-5.9	0.0-0.5	.32	.32			
	24-45	18-35	1.60-1.85	0.20-0.60	0.06-0.10	3.0-5.9	0.0-1.0	.32	.32			
	45-60	12-22	1.70-1.95	0.20-0.60	0.04-0.12	0.0-2.9	0.0-0.5	.32	.32			
356A:												
Withee-----	0-9	12-18	1.20-1.45	0.60-2.00	0.19-0.24	0.0-2.9	3.0-4.0	.37	.37	4	5	56
	9-14	10-18	1.35-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.0-1.0	.43	.43			
	14-18	12-22	1.55-1.65	0.60-2.00	0.18-0.22	0.0-2.9	0.0-0.5	.43	.43			
	18-24	12-22	1.55-1.65	0.60-2.00	0.18-0.22	0.0-2.9	0.0-0.5	.43	.43			
	24-47	18-35	1.60-1.85	0.20-0.60	0.06-0.10	3.0-5.9	0.0-1.0	.32	.32			
	47-60	12-22	1.70-1.95	0.20-0.60	0.04-0.12	0.0-2.9	0.0-0.5	.32	.32			
357A:												
Marshfield-----	0-9	15-25	1.25-1.45	0.60-2.00	0.17-0.24	0.0-2.9	3.0-10	.32	.32	4	5	56
	9-14	8-23	1.40-1.60	0.60-2.00	0.17-0.24	0.0-2.9	0.5-3.0	.43	.43			
	14-30	18-35	1.40-1.60	0.60-2.00	0.14-0.22	3.0-5.9	0.5-2.0	.43	.43			
	30-36	18-35	1.60-1.85	0.20-0.60	0.06-0.10	3.0-5.9	0.0-1.0	.32	.32			
	36-60	12-22	1.70-1.95	0.20-0.60	0.04-0.12	0.0-2.9	0.0-0.5	.32	.32			
408A:												
Lupton-----	0-60	---	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	---	---	3	8	0
Cathro-----	0-28	---	0.28-0.45	0.20-6.00	0.35-0.45	---	60-85	---	---	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			
414A:												
Loxley-----	0-12	---	0.30-0.40	6.00-20	0.55-0.65	---	70-90	---	---	3	8	0
	12-60	---	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	---	---			
Beseman-----	0-12	---	0.10-0.20	6.00-20	0.55-0.65	---	25-75	---	---	2	8	0
	12-36	---	0.10-0.25	0.60-6.00	0.35-0.45	---	25-75	---	---			
	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			
457B:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
Freeon-----	0-9	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
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
457C:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
Freeon-----	0-9	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
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
515A:												
Manitowish-----	0-3	3-15	1.30-1.70	2.00-6.00	0.11-0.15	0.0-2.9	1.0-3.0	.24	.24	3	3	86
	3-4	3-13	1.35-1.65	0.60-6.00	0.11-0.18	0.0-2.9	0.5-1.0	.24	.24			
	4-16	5-15	1.40-1.70	0.60-6.00	0.11-0.18	0.0-2.9	1.0-2.0	.24	.24			
	16-19	0-8	1.45-1.65	2.00-60	0.04-0.12	0.0-2.9	1.0-2.0	.15	.15			
	19-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
525B:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Padwood-----	0-4	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	2.0-3.0	.24	.24	4	3	86
	4-5	3-13	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.24	.24			
	5-15	3-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.24	.24			
	15-27	3-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	27-36	2-5	1.40-1.70	6.00-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.17			
	36-50	0-3	1.50-1.80	6.00-20	0.01-0.08	0.0-2.9	0.0-0.5	.10	.10			
	50-70	5-15	1.40-1.80	0.20-0.60	0.10-0.18	0.0-2.9	0.0-0.5	.32	.32			
Tipler-----	0-3	3-15	1.35-1.70	0.60-2.00	0.10-0.15	0.0-2.9	2.0-3.0	.24	.24	4	3	86
	3-5	3-13	1.40-1.65	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	5-19	5-15	1.40-1.65	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.24	.24			
	19-26	7-17	1.40-1.65	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	26-33	8-18	1.40-1.65	0.60-2.00	0.06-0.19	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			
527B:												
Padwood-----	0-4	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	2.0-3.0	.24	.24	4	3	86
	4-5	3-13	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.24	.24			
	5-15	3-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.24	.24			
	15-27	3-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	27-36	2-5	1.40-1.70	6.00-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.17			
	36-50	0-3	1.50-1.80	6.00-20	0.01-0.08	0.0-2.9	0.0-0.5	.10	.10			
	50-70	5-15	1.40-1.80	0.20-0.60	0.10-0.18	0.0-2.9	0.0-0.5	.32	.32			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
537D:												
Newot, very stony----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	4	8	0
	2-4	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	4-10	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.20	.28			
	10-25	5-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	25-38	5-15	1.40-1.70	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	38-55	7-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	55-60	6-12	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Cathro-----	0-28	---	0.28-0.45	0.20-6.00	0.35-0.45	---	60-85	---	---	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			
545C:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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	0.0000-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
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			
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			
560A:												
Worwood-----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	3	86
	1-2	2-14	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-2.0	.24	.24			
	2-10	3-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-2.0	.24	.24			
	10-15	3-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-2.0	.24	.24			
	15-27	3-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	27-38	2-5	1.40-1.70	6.00-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.17			
	38-50	0-3	1.50-1.80	6.00-20	0.01-0.08	0.0-2.9	0.0-0.5	.10	.15			
	50-70	5-15	1.40-1.80	0.20-0.60	0.10-0.18	0.0-2.9	0.0-0.5	.32	.32			

Table 24.--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			Wind	Wind
								Kw	Kf	T	erodi- bility group	erodi- bility index
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
571E:												
Pelissier-----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	2	3	86
	2-6	2-15	1.30-1.60	2.00-6.00	0.10-0.12	0.0-2.9	0.5-1.0	.17	.20			
	6-10	2-15	1.30-1.65	2.00-6.00	0.08-0.12	0.0-2.9	0.6-1.0	.15	.24			
	10-21	0-10	1.30-1.70	6.00-20	0.03-0.05	0.0-2.9	0.0-0.5	.05	.15			
	21-80	0-5	1.55-1.65	20-100	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
612A:												
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			
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			
623A:												
Capitola, very stony--	0-5	---	0.15-0.35	2.00-6.00	0.35-0.45	---	50-80	---	---	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	0.01-0.20	0.00-0.04	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			
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			
637B:												
Newood, very stony---	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
637C:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
642B:												
Pesabic, very stony---	0-3	---	0.15-0.30	6.00-20	0.45-0.55	---	65-85	---	---	4	8	0
	3-4	6-15	1.35-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.1-1.0	.24	.24			
	4-16	6-15	1.35-1.70	0.60-2.00	0.08-0.19	0.0-2.9	1.0-3.0	.24	.24			
	16-30	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	30-39	6-17	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	39-53	10-20	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	53-84	4-17	1.80-2.05	0.0000-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
Capitola, very stony--	0-5	---	0.15-0.35	2.00-6.00	0.35-0.45	---	50-80	---	---	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	0.01-0.20	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
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	6-17	1.50-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.32	.32			
	34-38	8-17	1.50-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			
683A:												
Tipler-----	0-3	3-15	1.35-1.70	0.60-2.00	0.10-0.15	0.0-2.9	2.0-3.0	.24	.24	4	3	86
	3-5	3-13	1.40-1.65	0.60-2.00	0.08-0.19	0.0-2.9	0.5-1.0	.24	.24			
	5-19	5-15	1.40-1.65	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.24	.24			
	19-26	7-17	1.40-1.65	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	26-33	8-18	1.40-1.65	0.60-2.00	0.06-0.19	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			
737D:												
Santiago, very stony--	0-4	5-15	1.20-1.55	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.37	.37	4	8	0
	4-16	5-14	1.40-1.60	0.60-2.00	0.20-0.23	0.0-2.9	0.1-1.0	.43	.43			
	16-22	7-17	1.45-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
	22-44	7-17	1.65-1.90	0.06-0.60	0.09-0.18	0.0-2.9	0.0-0.5	.24	.24			
	44-60	3-14	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
748A:												
Brander -----	0-10	10-20	1.30-1.55	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	10-17	10-20	1.35-1.60	0.60-2.00	0.16-0.22	0.0-2.9	0.5-1.0	.43	.43			
	17-22	18-27	1.40-1.65	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	22-32	18-27	1.40-1.65	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	32-35	6-20	1.45-1.70	0.60-6.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.32			
	35-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
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			
757B:												
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			
Freeon, very stony ----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
Freeon -----	0-9	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
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
766A:												
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			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
822A:												
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			
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			
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			
837E:												
Newot, very stony-----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	4	8	0
	2-4	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	4-10	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.20	.28			
	10-25	5-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	25-38	5-15	1.40-1.70	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	38-55	7-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	55-60	6-12	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
848A:												
Ribriver-----	0-5	10-20	1.30-1.55	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	5-10	10-20	1.35-1.60	0.60-2.00	0.16-0.22	0.0-2.9	0.5-1.0	.43	.43			
	10-17	14-24	1.40-1.65	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	17-24	17-25	1.40-1.65	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	24-45	18-27	1.40-1.65	0.60-2.00	0.16-0.22	0.0-2.9	0.0-0.5	.43	.43			
	45-48	6-20	1.45-1.70	0.60-6.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.32			
	48-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
863B:												
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			
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
863B:												
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	6-17	1.50-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.32	.32			
	34-38	8-17	1.50-1.70	0.60-2.00	0.05-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			
923A:												
Capitola, very stony--	0-5	---	0.15-0.35	2.00-6.00	0.35-0.45	---	50-80	---	---	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	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Cebana, very stony----	0-8	12-16	1.25-1.45	0.60-2.00	0.16-0.24	0.0-2.9	1.0-3.0	.37	.37	4	8	0
	8-13	8-17	1.35-1.60	0.60-2.00	0.09-0.22	0.0-2.9	0.5-1.0	.43	.43			
	13-27	8-17	1.35-1.60	0.60-2.00	0.09-0.22	0.0-2.9	0.5-1.0	.43	.43			
	27-49	10-20	1.40-1.90	0.06-0.20	0.07-0.16	0.0-2.9	0.0-0.5	.28	.28			
	49-67	5-10	1.70-1.90	0.06-0.20	0.07-0.16	0.0-2.9	0.0-0.5	.28	.28			
	67-80	5-10	1.80-2.00	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
956B:												
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			
957B:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
957C:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
2015.												
Pits												
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 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
3456A:												
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			
3525C:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Padwood-----	0-4	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	2.0-3.0	.24	.24	4	3	86
	4-5	3-13	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.24	.24			
	5-15	3-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.24	.24			
	15-27	3-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	27-36	2-5	1.40-1.70	6.00-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.17			
	36-50	0-3	1.50-1.80	6.00-20	0.01-0.08	0.0-2.9	0.0-0.5	.10	.10			
	50-70	5-15	1.40-1.80	0.20-0.60	0.10-0.18	0.0-2.9	0.0-0.5	.32	.32			
Padus-----	0-2	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	2-3	3-13	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	3-19	5-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.24	.24			
	19-26	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	26-38	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			
3546C:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Pence, very stony----	0-3	3-15	1.30-1.70	2.00-6.00	0.11-0.15	0.0-2.9	1.0-3.0	.24	.24	3	3	86
	3-8	3-13	1.35-1.65	0.60-6.00	0.11-0.18	0.0-2.9	0.5-1.0	.24	.24			
	8-15	5-15	1.35-1.45	0.60-6.00	0.10-0.15	0.0-2.9	1.0-2.0	.17	.24			
	15-21	0-6	1.65-1.75	2.00-60	0.05-0.08	0.0-2.9	0.0-0.5	.05	.10			
	21-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
3556C:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
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			
Cathro-----	0-28	---	0.28-0.45	0.20-6.00	0.35-0.45	---	60-85	---	---	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			
3561A:												
Pesabic, very stony---	0-3	---	0.15-0.30	6.00-20	0.45-0.55	---	65-85	---	---	4	8	0
	3-4	6-15	1.35-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.1-1.0	.24	.24			
	4-16	6-15	1.35-1.70	0.60-2.00	0.08-0.19	0.0-2.9	1.0-3.0	.24	.24			
	16-30	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	30-39	6-17	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	39-53	10-20	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	53-84	4-17	1.80-2.05	0.0000-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
Worwood-----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	3	86
	1-2	2-14	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-2.0	.24	.24			
	2-10	3-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-2.0	.24	.24			
	10-15	3-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.0-2.0	.24	.24			
	15-27	3-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	27-38	2-5	1.40-1.70	6.00-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.17			
	38-50	0-3	1.50-1.80	6.00-20	0.01-0.08	0.0-2.9	0.0-0.5	.10	.15			
	50-70	5-15	1.40-1.80	0.20-0.60	0.10-0.18	0.0-2.9	0.0-0.5	.32	.32			
Worcester-----	0-2	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	2-3	3-13	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-2.0	.24	.24			
	3-6	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-2.0	.24	.24			
	6-16	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-2.0	.24	.24			
	16-20	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	20-32	8-18	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	32-39	3-8	1.45-1.70	6.00-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.17			
	39-60	1-6	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
3569C:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
3569C:												
Pesabic, very stony---	0-3	---	0.15-0.30	6.00-20	0.45-0.55	---	65-85	---	---	4	8	0
	3-4	6-15	1.35-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.1-1.0	.24	.24			
	4-16	6-15	1.35-1.70	0.60-2.00	0.08-0.19	0.0-2.9	1.0-3.0	.24	.24			
	16-30	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	30-39	6-17	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	39-53	10-20	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	53-84	4-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
Cathro-----	0-28	---	0.28-0.45	0.20-6.00	0.35-0.45	---	60-85	---	---	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			
3666B:												
Pesabic, very stony---	0-3	---	0.15-0.30	6.00-20	0.45-0.55	---	65-85	---	---	4	8	0
	3-4	6-15	1.35-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.1-1.0	.24	.24			
	4-16	6-15	1.35-1.70	0.60-2.00	0.08-0.19	0.0-2.9	1.0-3.0	.24	.24			
	16-30	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	30-39	6-17	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	39-53	10-20	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	53-84	4-17	1.80-2.05	0.0000-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
3863C:												
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			
Freeon, very stony---	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
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			
9052A:												
Cathro-----	0-28	---	0.28-0.45	0.20-6.00	0.35-0.45	---	60-85	---	---	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			
Capitola, very stony--	0-5	---	0.15-0.35	2.00-6.00	0.35-0.45	---	50-80	---	---	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	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Lupton-----	0-60	---	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	---	---	3	8	0
9055A:												
Loxley-----	0-12	---	0.30-0.40	6.00-20	0.55-0.65	---	70-90	---	---	3	8	0
	12-60	---	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	---	---			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
9060D:												
Pelissier-----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	2	3	86
	2-6	2-15	1.30-1.60	2.00-6.00	0.10-0.12	0.0-2.9	0.5-1.0	.20	.20			
	6-10	2-15	1.30-1.65	2.00-6.00	0.08-0.12	0.0-2.9	0.6-1.0	.15	.24			
	10-21	0-10	1.30-1.70	6.00-20	0.03-0.05	0.0-2.9	0.0-0.5	.05	.15			
	21-80	0-5	1.55-1.65	20-100	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
9071B:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
9077C:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
9078A:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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, 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			
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			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
9081C:												
Newot, very stony----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	4	8	0
	2-4	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	4-10	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.20	.28			
	10-25	5-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	25-38	5-15	1.40-1.70	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	38-55	7-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	55-60	6-12	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
9082B:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
9083A:												
Crystal Lake-----	0-4	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
	4-12	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			
9083B:												
Crystal Lake-----	0-4	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
	4-12	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			
9086A:												
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			
9087C:												
Crystal Lake-----	0-4	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
	4-12	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			
Freeon, very stony----	0-1	---	0.15-0.30	6.00-20	0.55-0.65	---	65-85	---	---	4	8	0
	1-5	7-17	1.35-1.55	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.37	.37			
	5-9	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	9-13	7-17	1.55-1.65	0.60-2.00	0.17-0.22	0.0-2.9	0.0-1.0	.43	.43			
	13-19	5-17	1.30-1.60	0.60-2.00	0.18-0.22	0.0-2.9	0.1-1.0	.43	.43			
	19-26	7-17	1.70-1.80	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	26-38	3-14	1.65-1.90	0.06-0.60	0.08-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-58	3-14	1.80-2.00	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			

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
9087C:												
Newot, very stony-----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	4	8	0
	2-4	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	4-10	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.20	.28			
	10-25	5-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	25-38	5-15	1.40-1.70	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	38-55	7-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	55-60	6-12	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
9088A:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Capitola, very stony--	0-5	---	0.15-0.35	2.00-6.00	0.35-0.45	---	50-80	---	---	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	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
9089B:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Lupton-----	0-60	---	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	---	---	3	8	0
9090C:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Newot, very stony-----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	4	8	0
	2-4	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	4-10	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.20	.28			
	10-25	5-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	25-38	5-15	1.40-1.70	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	38-55	7-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	55-60	6-12	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
Lupton-----	0-60	---	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	---	---	3	8	0

Table 24.--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			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
9092D:												
Newot, very stony-----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	4	8	0
	2-4	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	4-10	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.20	.28			
	10-25	5-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	25-38	5-15	1.40-1.70	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	38-55	7-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	55-60	6-12	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
9093C:												
Pence-----	0-3	3-15	1.30-1.70	2.00-6.00	0.11-0.15	0.0-2.9	1.0-3.0	.24	.24	3	3	86
	3-8	3-13	1.35-1.65	0.60-6.00	0.11-0.18	0.0-2.9	0.5-1.0	.24	.24			
	8-15	5-15	1.35-1.45	0.60-6.00	0.10-0.15	0.0-2.9	1.0-2.0	.17	.24			
	15-21	0-6	1.65-1.75	2.00-60	0.05-0.08	0.0-2.9	0.0-0.5	.05	.10			
	21-60	0-5	1.55-1.80	6.00-20	0.01-0.07	0.0-2.9	0.0-0.5	.10	.15			
Padus-----	0-2	3-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	4	3	86
	2-3	3-13	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	3-19	5-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.24	.24			
	19-26	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	26-38	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			
9096C:												
Newot, very stony-----	0-2	---	0.15-0.30	6.00-20	0.35-0.45	---	65-85	---	---	4	8	0
	2-4	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	4-10	2-12	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.20	.28			
	10-25	5-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	25-38	5-15	1.40-1.70	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	38-55	7-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	55-60	6-12	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
Pesabic, very stony---	0-3	---	0.15-0.30	6.00-20	0.45-0.55	---	65-85	---	---	4	8	0
	3-4	6-15	1.35-1.70	0.60-2.00	0.12-0.19	0.0-2.9	0.1-1.0	.24	.24			
	4-16	6-15	1.35-1.70	0.60-2.00	0.08-0.19	0.0-2.9	1.0-3.0	.24	.24			
	16-30	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	30-39	6-17	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.1-1.0	.28	.28			
	39-53	10-20	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	53-84	4-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.20	.28			
Lupton-----	0-60	---	0.10-0.35	0.20-6.00	0.35-0.45	---	70-90	---	---	3	8	0
9097B:												
Newood, very stony----	0-4	6-15	1.35-1.70	0.60-2.00	0.12-0.18	0.0-2.9	1.0-3.0	.24	.24	4	8	0
	4-5	5-13	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	5-13	6-15	1.35-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-2.0	.17	.24			
	13-17	5-13	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	17-29	6-15	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	29-37	9-16	1.40-1.70	0.60-2.00	0.06-0.17	0.0-2.9	0.0-0.5	.20	.28			
	37-46	10-17	1.70-1.90	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	46-58	10-17	1.80-2.00	0.06-0.20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.28			
	58-60	7-17	1.80-2.05	0.01-0.06	0.00-0.04	0.0-2.9	0.0-0.5	.28	.28			
Padus, very stony-----	0-2	9-15	1.35-1.70	0.60-2.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	4	3	56
	2-3	3-13	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	0.5-1.0	.24	.24			
	3-19	5-15	1.40-1.70	0.60-2.00	0.09-0.19	0.0-2.9	1.0-2.0	.24	.24			
	19-26	5-15	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	26-38	7-17	1.40-1.70	0.60-2.00	0.06-0.19	0.0-2.9	0.0-0.5	.24	.24			
	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			

Table 25.--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
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
24A:					
Poskin-----	0-9	6.0-20	---	4.5-7.3	0
	9-12	2.0-15	---	4.5-6.5	0
	12-19	3.0-20	---	4.5-6.5	0
	19-36	4.0-20	---	4.5-6.5	0
	36-39	0.0-15	---	4.5-6.5	0
	39-60	0.0-6.0	---	4.5-6.5	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
43D:					
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
48B:					
Brill-----	0-7	4.0-20	---	4.5-7.3	0
	7-11	3.0-20	---	4.5-6.5	0
	11-19	2.0-15	---	4.5-6.5	0
	19-34	4.0-25	---	4.5-6.5	0
	34-38	0.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
57B:					
Spencer-----	0-9	6.0-20	---	4.5-7.3	0
	9-12	---	2.0-20	4.5-6.5	0
	12-22	---	4.0-20	4.5-6.0	0
	22-30	---	4.0-20	4.5-6.0	0
	30-42	---	4.0-20	4.5-6.0	0
	42-48	2.0-15	---	5.1-6.5	0
	48-72	2.0-15	---	5.1-6.5	0

Table 25.--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
59A:					
Almena-----	0-9	7.0-30	---	4.5-7.3	0
	9-13	---	2.0-20	4.5-6.0	0
	13-21	---	3.0-20	4.5-6.0	0
	21-42	---	4.0-25	4.5-6.0	0
	42-60	2.0-15	---	5.1-6.5	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
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
63D:					
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
63E:					
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
77A:					
Auburndale-----	0-7	10-45	---	4.5-7.3	0
	7-14	---	2.0-20	4.5-6.0	0
	14-41	---	4.0-20	4.5-6.0	0
	41-53	---	1.0-15	4.5-6.0	0
	53-60	1.0-15	---	4.5-6.5	0
182B:					
Padus-----	0-2	3.0-15	---	4.5-7.3	0
	2-3	1.0-10	---	4.5-6.5	0
	3-19	---	3.0-15	4.5-6.0	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
182C:					
Padus-----	0-2	3.0-15	---	4.5-7.3	0
	2-3	1.0-10	---	4.5-6.5	0
	3-19	---	3.0-15	4.5-6.0	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0

Table 25.--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
182D:					
Padus -----	0-2	3.0-15	---	4.5-7.3	0
	2-3	1.0-10	---	4.5-6.5	0
	3-19	---	3.0-15	4.5-6.0	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
192A:					
Worcester -----	0-2	3.0-20	---	4.5-7.3	0
	2-3	---	3.0-15	4.5-6.0	0
	3-6	---	3.0-15	4.5-6.0	0
	6-16	---	3.0-15	4.5-6.0	0
	16-20	2.0-15	---	4.5-6.5	0
	20-32	2.0-15	---	4.5-6.5	0
	32-39	1.0-7.0	---	4.5-6.5	0
	39-60	0.0-6.0	---	4.5-6.5	0
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
215B:					
Pence -----	0-3	3.0-15	---	4.5-7.3	0
	3-8	1.0-15	---	4.5-7.3	0
	8-15	---	2.0-15	4.5-6.0	0
	15-21	0.0-10	---	4.5-6.5	0
	21-60	0.0-6.0	---	4.5-6.5	0
215C:					
Pence -----	0-3	3.0-15	---	4.5-7.3	0
	3-8	1.0-15	---	4.5-7.3	0
	8-15	---	2.0-15	4.5-6.0	0
	15-21	0.0-10	---	4.5-6.5	0
	21-60	0.0-6.0	---	4.5-6.5	0
215D:					
Pence -----	0-3	3.0-15	---	4.5-7.3	0
	3-8	1.0-15	---	4.5-7.3	0
	8-15	---	2.0-15	4.5-6.0	0
	15-21	0.0-10	---	4.5-6.5	0
	21-60	0.0-6.0	---	4.5-6.5	0
308B:					
Blackriver -----	0-9	5.0-20	---	4.5-7.3	0
	9-18	2.0-20	---	4.5-6.5	0
	18-25	3.0-20	---	4.5-6.5	0
	25-48	4.0-20	---	4.5-6.5	0
	48-52	0.0-15	---	4.5-6.5	0
	52-60	0.0-6.0	---	4.5-6.5	0
315A:					
Rib -----	0-7	8.0-35	---	4.5-7.3	0
	7-10	2.0-15	---	4.5-7.3	0
	10-32	4.0-25	---	4.5-7.3	0
	32-35	1.0-20	---	4.5-7.3	0
	35-37	0.0-10	---	4.5-7.3	0
	37-60	0.0-6.0	---	5.5-8.4	0

Table 25.--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
324A:					
Maplehurst-----	0-9	5.0-20	---	4.5-7.3	0
	9-16	2.0-20	---	4.5-6.5	0
	16-25	3.0-20	---	4.5-6.5	0
	25-44	4.0-20	---	4.5-6.5	0
	44-47	0.0-15	---	4.5-6.5	0
	47-60	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
345B:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
Sconsin-----	0-4	6.0-20	---	4.5-7.3	0
	4-5	1.0-15	---	4.5-6.5	0
	5-10	1.0-15	---	4.5-6.5	0
	10-18	1.0-15	---	4.5-6.5	0
	18-27	1.0-15	---	4.5-6.5	0
	27-34	2.0-15	---	4.5-6.5	0
	34-38	2.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
346E:					
Newot, very stony----	0-2	---	80-120	3.6-5.5	0
	2-4	---	3.0-20	3.6-5.5	0
	4-10	---	2.0-15	4.5-5.5	0
	10-25	---	1.0-15	4.5-6.0	0
	25-38	2.0-15	---	5.1-6.5	0
	38-55	2.0-15	---	5.1-6.5	0
	55-60	1.0-15	---	5.1-6.5	0
Pence, very stony----	0-3	3.0-15	---	4.5-7.3	0
	3-8	1.0-15	---	4.5-7.3	0
	8-15	---	2.0-15	4.5-6.0	0
	15-21	0.0-10	---	4.5-6.5	0
	21-60	0.0-6.0	---	4.5-6.5	0
355B:					
Loyal-----	0-9	4.0-20	---	4.5-7.3	0
	9-14	---	2.0-15	4.5-7.3	0
	14-20	---	2.0-20	4.5-6.0	0
	20-24	---	4.0-20	4.5-6.0	0
	24-45	4.0-30	---	4.5-7.3	0
	45-60	---	14-22	4.5-5.5	0

Table 25.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate
	In	meq/100 g	meq/100 g	pH	Pct
355C:					
Loyal-----	0-9	4.0-20	---	4.5-7.3	0
	9-14	---	2.0-15	4.5-7.3	0
	14-20	---	2.0-20	4.5-6.0	0
	20-24	---	4.0-20	4.5-6.0	0
	24-45	4.0-30	---	4.5-7.3	0
	45-60	---	14-22	4.5-5.5	0
356A:					
Withee-----	0-9	6.0-25	---	4.5-7.3	0
	9-14	---	---	4.5-7.3	0
	14-18	---	2.0-13	4.5-5.5	0
	18-24	---	2.0-13	4.5-5.5	0
	24-47	4.0-30	---	4.5-7.3	0
	47-60	---	14-22	4.5-5.5	0
357A:					
Marshfield-----	0-9	---	9.0-40	3.5-7.3	0
	9-14	---	3.0-25	3.5-6.0	0
	14-30	---	5.0-30	3.5-6.0	0
	30-36	4.0-30	---	4.5-7.3	0
	36-60	---	14-22	4.5-5.5	0
408A:					
Lupton-----	0-60	140-180	---	5.6-7.8	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
414A:					
Loxley-----	0-12	---	50-100	3.5-4.4	0
	12-60	---	50-120	3.5-4.4	0
Beseman-----	0-12	---	50-150	3.5-4.4	0
	12-36	---	50-150	3.5-4.4	0
	36-60	3.0-15	---	3.5-7.3	0
457B:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
Freeon-----	0-9	---	3.0-20	3.5-7.3	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0

Table 25.--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
457C:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
Freeon-----	0-9	---	3.0-20	3.5-7.3	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
515A:					
Manitowish-----	0-3	3.0-15	---	4.5-7.3	0
	3-4	1.0-15	---	4.5-7.3	0
	4-16	---	3.0-15	4.5-6.0	0
	16-19	3.0-15	---	4.5-6.5	0
	19-60	0.0-6.0	---	4.5-6.5	0
525B:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
Padwood-----	0-4	5.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-15	---	2.0-15	4.5-6.0	0
	15-27	1.0-15	---	4.5-6.5	0
	27-36	0.0-5.0	---	4.5-6.5	0
	36-50	0.0-3.0	---	5.1-6.5	0
	50-70	1.0-15	---	5.1-6.5	0
Tipler-----	0-3	5.0-15	---	4.5-7.3	0
	3-5	4.0-10	---	4.5-6.5	0
	5-19	---	2.0-15	4.5-6.0	0
	19-26	1.0-15	---	5.1-6.5	0
	26-33	1.0-15	---	5.1-6.5	0
	33-60	0.0-6.0	---	4.5-6.5	0
527B:					
Padwood-----	0-4	5.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-15	---	2.0-15	4.5-6.0	0
	15-27	1.0-15	---	4.5-6.5	0
	27-36	0.0-5.0	---	4.5-6.5	0
	36-50	0.0-3.0	---	5.1-6.5	0
	50-70	1.0-15	---	5.1-6.5	0

Table 25.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate
	In	meq/100 g	meq/100 g	pH	Pct
537D:					
Newot, very stony----	0-2	---	80-120	3.6-5.5	0
	2-4	---	3.0-20	3.6-5.5	0
	4-10	---	2.0-15	4.5-5.5	0
	10-25	---	1.0-15	4.5-6.0	0
	25-38	2.0-15	---	5.1-6.5	0
	38-55	2.0-15	---	5.1-6.5	0
	55-60	1.0-15	---	5.1-6.5	0
Newood, very stony---					
	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	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
545C:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
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
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
560A:					
Worwood-----	0-1	---	80-120	3.6-5.5	0
	1-2	---	2.0-15	4.5-6.0	0
	2-10	---	2.0-15	4.5-6.0	0
	10-15	---	2.0-15	4.5-6.0	0
	15-27	1.0-15	---	4.5-6.5	0
	27-38	0.0-5.0	---	4.5-6.5	0
	38-50	0.0-3.0	---	5.1-6.5	0
	50-70	1.0-15	---	5.1-6.5	0

Table 25.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate
	In	meq/100 g	meq/100 g	pH	Pct
571E:					
Pelissier-----	0-2	---	80-120	3.6-5.5	0
	2-6	---	2.0-10	3.6-5.5	0
	6-10	---	1.0-5.0	4.5-5.5	0
	10-21	---	1.0-4.0	5.1-5.5	0
	21-80	---	1.0-2.0	5.1-5.5	0
612A:					
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
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
623A:					
Capitola, very stony	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
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
637B:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0

Table 25.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate
	In	meq/100 g	meq/100 g	pH	Pct
637C:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
642B:					
Pesabic, very stony--	0-3	---	80-120	3.6-5.5	0
	3-4	3.0-20	---	4.5-6.5	0
	4-16	1.0-15	---	4.5-6.5	0
	16-30	2.0-17	---	4.5-6.5	0
	30-39	2.0-17	---	4.5-6.5	0
	39-53	1.0-15	---	4.5-6.5	0
	53-84	1.0-15	---	5.1-6.5	0
Capitola, very stony					
	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
Newood, very stony---					
	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
648B:					
Sconsin-----	0-4	6.0-20	---	4.5-7.3	0
	4-5	1.0-15	---	4.5-6.5	0
	5-10	1.0-15	---	4.5-6.5	0
	10-18	1.0-15	---	4.5-6.5	0
	18-27	1.0-15	---	4.5-6.5	0
	27-34	2.0-15	---	4.5-6.5	0
	34-38	2.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
683A:					
Tipler-----	0-3	5.0-15	---	4.5-7.3	0
	3-5	4.0-10	---	4.5-6.5	0
	5-19	---	2.0-15	4.5-6.0	0
	19-26	1.0-15	---	5.1-6.5	0
	26-33	1.0-15	---	5.1-6.5	0
	33-60	0.0-6.0	---	4.5-6.5	0
737D:					
Santiago, very stony	0-4	3.0-20	---	4.5-7.3	0
	4-16	1.0-15	---	4.5-6.5	0
	16-22	1.0-15	---	4.5-6.5	0
	22-44	1.0-15	---	4.5-6.5	0
	44-60	1.0-10	---	5.1-7.3	0

Table 25.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium
		exchange capacity	cation- exchange capacity	reaction	carbon- ate
	In	meq/100 g	meq/100 g	pH	Pct
748A:					
Brander-----	0-10	4.0-20	---	4.5-7.3	0
	10-17	3.0-20	---	4.5-6.5	0
	17-22	4.0-25	---	4.5-6.5	0
	22-32	4.0-25	---	4.5-6.5	0
	32-35	1.0-15	---	4.5-6.5	0
	35-60	0.0-6.0	---	4.5-6.5	0
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
757B:					
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
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	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
Freeon-----	0-9	---	3.0-20	3.5-7.3	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
766A:					
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

Table 25.--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
822A:					
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
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
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
837E:					
Newot, very stony----	0-2	---	80-120	3.6-5.5	0
	2-4	---	3.0-20	3.6-5.5	0
	4-10	---	2.0-15	4.5-5.5	0
	10-25	---	1.0-15	4.5-6.0	0
	25-38	2.0-15	---	5.1-6.5	0
	38-55	2.0-15	---	5.1-6.5	0
	55-60	1.0-15	---	5.1-6.5	0
848A:					
Ribriver-----	0-5	4.0-20	---	4.5-7.3	0
	5-10	3.0-20	---	4.5-6.5	0
	10-17	4.0-25	---	4.5-6.5	0
	17-24	4.0-25	---	4.5-6.5	0
	24-45	4.0-25	---	4.5-6.5	0
	45-48	1.0-15	---	4.5-6.5	0
	48-60	0.0-6.0	---	4.5-6.5	0
863B:					
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
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0

Table 25.--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
863B:					
Sconsin-----	0-4	6.0-20	---	4.5-7.3	0
	4-5	1.0-15	---	4.5-6.5	0
	5-10	1.0-15	---	4.5-6.5	0
	10-18	1.0-15	---	4.5-6.5	0
	18-27	1.0-15	---	4.5-6.5	0
	27-34	2.0-15	---	4.5-6.5	0
	34-38	2.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
923A:					
Capitola, very stony	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
Cebana, very stony---	0-8	8.0-35	---	5.1-7.3	0
	8-13	3.0-15	---	5.1-6.5	0
	13-27	3.0-15	---	5.1-6.5	0
	27-49	2.0-15	---	5.1-7.3	0
	49-67	1.0-10	---	5.1-7.3	0
	67-80	1.0-10	---	5.1-7.8	0
956B:					
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
957B:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
957C:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
2015. Pits					

Table 25.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium
		exchange capacity	cation- exchange capacity	reaction	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
3456A:					
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
3525C:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
Padwood-----	0-4	5.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-15	---	2.0-15	4.5-6.0	0
	15-27	1.0-15	---	4.5-6.5	0
	27-36	0.0-5.0	---	4.5-6.5	0
	36-50	0.0-3.0	---	5.1-6.5	0
	50-70	1.0-15	---	5.1-6.5	0
Padus-----	0-2	3.0-15	---	4.5-7.3	0
	2-3	1.0-10	---	4.5-6.5	0
	3-19	---	3.0-15	4.5-6.0	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
3546C:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0

Table 25.--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
3546C:					
Pence, very stony----	0-3	3.0-15	---	4.5-7.3	0
	3-8	1.0-15	---	4.5-7.3	0
	8-15	---	2.0-15	4.5-6.0	0
	15-21	0.0-10	---	4.5-6.5	0
	21-60	0.0-6.0	---	4.5-6.5	0
3556C:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
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
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
3561A:					
Pesabic, very stony--	0-3	---	80-120	3.6-5.5	0
	3-4	3.0-20	---	4.5-6.5	0
	4-16	1.0-15	---	4.5-6.5	0
	16-30	2.0-17	---	4.5-6.5	0
	30-39	2.0-17	---	4.5-6.5	0
	39-53	1.0-15	---	4.5-6.5	0
	53-84	1.0-15	---	5.1-6.5	0
Worwood-----	0-1	---	80-120	3.6-5.5	0
	1-2	---	2.0-15	4.5-6.0	0
	2-10	---	2.0-15	4.5-6.0	0
	10-15	---	2.0-15	4.5-6.0	0
	15-27	1.0-15	---	4.5-6.5	0
	27-38	0.0-5.0	---	4.5-6.5	0
	38-50	0.0-3.0	---	5.1-6.5	0
	50-70	1.0-15	---	5.1-6.5	0
Worcester-----	0-2	3.0-20	---	4.5-7.3	0
	2-3	---	3.0-15	4.5-6.0	0
	3-6	---	3.0-15	4.5-6.0	0
	6-16	---	3.0-15	4.5-6.0	0
	16-20	2.0-15	---	4.5-6.5	0
	20-32	2.0-15	---	4.5-6.5	0
	32-39	1.0-7.0	---	4.5-6.5	0
	39-60	0.0-6.0	---	4.5-6.5	0

Table 25.--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
3569C:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
Pesabic, very stony--	0-3	---	80-120	3.6-5.5	0
	3-4	3.0-20	---	4.5-6.5	0
	4-16	1.0-15	---	4.5-6.5	0
	16-30	2.0-17	---	4.5-6.5	0
	30-39	2.0-17	---	4.5-6.5	0
	39-53	1.0-15	---	4.5-6.5	0
	53-84	1.0-15	---	5.1-6.5	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
3666B:					
Pesabic, very stony--	0-3	---	80-120	3.6-5.5	0
	3-4	3.0-20	---	4.5-6.5	0
	4-16	1.0-15	---	4.5-6.5	0
	16-30	2.0-17	---	4.5-6.5	0
	30-39	2.0-17	---	4.5-6.5	0
	39-53	1.0-15	---	4.5-6.5	0
	53-84	1.0-15	---	5.1-6.5	0
3863C:					
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
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
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
9052A:					
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

Table 25.--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
9052A:					
Capitola, very stony	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
Lupton-----	0-60	140-180	---	5.6-7.8	0
9055A:					
Loxley-----	0-12	---	50-100	3.5-4.4	0
	12-60	---	50-120	3.5-4.4	0
9060D:					
Pelissier-----	0-2	---	80-120	3.6-5.5	0
	2-6	---	2.0-10	3.6-5.5	0
	6-10	---	1.0-5.0	4.5-5.5	0
	10-21	---	1.0-4.0	5.1-5.5	0
	21-80	---	1.0-2.0	5.1-5.5	0
9071B:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
9077C:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
9078A:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
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

Table 25.--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
9078A:					
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
9081C:					
Newot, very stony----	0-2	---	80-120	3.6-5.5	0
	2-4	---	3.0-20	3.6-5.5	0
	4-10	---	2.0-15	4.5-5.5	0
	10-25	---	1.0-15	4.5-6.0	0
	25-38	2.0-15	---	5.1-6.5	0
	38-55	2.0-15	---	5.1-6.5	0
	55-60	1.0-15	---	5.1-6.5	0
9082B:					
Newood, very stony----	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
9083A:					
Crystal Lake-----	0-4	6.0-25	---	4.5-7.3	0
	4-12	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
9083B:					
Crystal Lake-----	0-4	6.0-25	---	4.5-7.3	0
	4-12	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
9086A:					
Freeon, very stony----	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
9087C:					
Crystal Lake-----	0-4	6.0-25	---	4.5-7.3	0
	4-12	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 25.--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
9087C:					
Freeon, very stony---	0-1	---	80-120	3.6-5.5	0
	1-5	---	3.0-20	3.5-7.3	0
	5-9	---	1.0-15	3.5-6.0	0
	9-13	---	1.0-15	3.5-6.0	0
	13-19	1.0-15	---	4.5-6.5	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-10	---	4.5-6.5	0
	38-58	1.0-10	---	4.5-6.5	0
	58-60	1.0-10	---	4.5-6.5	0
Newot, very stony----	0-2	---	80-120	3.6-5.5	0
	2-4	---	3.0-20	3.6-5.5	0
	4-10	---	2.0-15	4.5-5.5	0
	10-25	---	1.0-15	4.5-6.0	0
	25-38	2.0-15	---	5.1-6.5	0
	38-55	2.0-15	---	5.1-6.5	0
	55-60	1.0-15	---	5.1-6.5	0
9088A:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
Capitola, very stony	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
9089B:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
Lupton-----	0-60	140-180	---	5.6-7.8	0
9090C:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0

Table 25.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation-	Effective	Soil	Calcium
		exchange capacity	cation- exchange capacity		
	In	meq/100 g	meq/100 g	pH	Pct
9090C:					
Newot, very stony----	0-2	---	80-120	3.6-5.5	0
	2-4	---	3.0-20	3.6-5.5	0
	4-10	---	2.0-15	4.5-5.5	0
	10-25	---	1.0-15	4.5-6.0	0
	25-38	2.0-15	---	5.1-6.5	0
	38-55	2.0-15	---	5.1-6.5	0
	55-60	1.0-15	---	5.1-6.5	0
Lupton-----	0-60	140-180	---	5.6-7.8	0
9092D:					
Newot, very stony----	0-2	---	80-120	3.6-5.5	0
	2-4	---	3.0-20	3.6-5.5	0
	4-10	---	2.0-15	4.5-5.5	0
	10-25	---	1.0-15	4.5-6.0	0
	25-38	2.0-15	---	5.1-6.5	0
	38-55	2.0-15	---	5.1-6.5	0
	55-60	1.0-15	---	5.1-6.5	0
9093C:					
Pence-----	0-3	3.0-15	---	4.5-7.3	0
	3-8	1.0-15	---	4.5-7.3	0
	8-15	---	2.0-15	4.5-6.0	0
	15-21	0.0-10	---	4.5-6.5	0
	21-60	0.0-6.0	---	4.5-6.5	0
Padus-----	0-2	3.0-15	---	4.5-7.3	0
	2-3	1.0-10	---	4.5-6.5	0
	3-19	---	3.0-15	4.5-6.0	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
9096C:					
Newot, very stony----	0-2	---	80-120	3.6-5.5	0
	2-4	---	3.0-20	3.6-5.5	0
	4-10	---	2.0-15	4.5-5.5	0
	10-25	---	1.0-15	4.5-6.0	0
	25-38	2.0-15	---	5.1-6.5	0
	38-55	2.0-15	---	5.1-6.5	0
	55-60	1.0-15	---	5.1-6.5	0
Pesabic, very stony--	0-3	---	80-120	3.6-5.5	0
	3-4	3.0-20	---	4.5-6.5	0
	4-16	1.0-15	---	4.5-6.5	0
	16-30	2.0-17	---	4.5-6.5	0
	30-39	2.0-17	---	4.5-6.5	0
	39-53	1.0-15	---	4.5-6.5	0
	53-84	1.0-15	---	5.1-6.5	0
Lupton-----	0-60	140-180	---	5.6-7.8	0

Table 25.--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
9097B:					
Newood, very stony---	0-4	3.0-20	---	4.5-7.3	0
	4-5	---	2.0-15	4.5-6.0	0
	5-13	---	2.0-15	4.5-6.0	0
	13-17	1.0-15	---	4.5-6.5	0
	17-29	1.0-15	---	4.5-6.5	0
	29-37	1.0-15	---	4.5-6.5	0
	37-46	2.0-15	---	4.5-6.5	0
	46-58	2.0-15	---	4.5-6.5	0
	58-60	1.0-15	---	5.1-6.5	0
Padus, very stony----	0-2	3.0-15	---	4.5-7.3	0
	2-3	1.0-10	---	4.5-6.5	0
	3-19	---	3.0-15	4.5-6.0	0
	19-26	1.0-15	---	4.5-6.5	0
	26-38	1.0-15	---	4.5-6.5	0
	38-60	0.0-6.0	---	4.5-6.5	0
9098A:					
Oesterle-----	0-2	---	80-120	3.6-5.5	0
	2-5	6.0-20	---	4.5-6.5	0
	5-13	3.0-15	---	4.5-6.5	0
	13-18	3.0-15	---	4.5-6.5	0
	18-26	1.0-10	---	4.5-6.5	0
	26-35	1.0-10	---	4.5-6.5	0
	35-44	1.0-6.0	---	5.1-6.5	0
	44-60	0.0-6.0	---	4.5-6.5	0
9099B:					
Antigo-----	0-2	---	80-120	3.6-5.5	0
	2-4	3.0-15	---	4.5-6.5	0
	4-14	3.0-15	---	4.5-6.5	0
	14-20	3.0-15	---	4.5-6.5	0
	20-31	3.0-15	---	4.5-6.5	0
	31-37	0.0-15	---	4.5-6.5	0
	37-40	0.0-10	---	4.5-6.5	0
	40-60	0.0-6.0	---	4.5-6.5	0
9197C:					
Pelissier-----	0-3	---	80-120	3.6-5.5	0
	3-5	---	2.0-10	3.6-5.5	0
	5-13	---	1.0-5.0	4.5-5.5	0
	13-20	---	1.0-4.0	5.1-5.5	0
	20-60	---	1.0-2.0	5.1-5.5	0
	60-80	---	1.0-2.0	5.1-5.5	0
M-W. Miscellaneous water					
W. Water					

Table 26.--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
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
24A: Poskin-----	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	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
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
43D: 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
48B: Brill-----	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	0.0-2.0: Moist 2.0-2.5: 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 --- ---
57B: Spencer-----	B	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 --- ---	0.0-6.0: 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 26.--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
59A: Almena-----	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 2.5-3.5: Wet 3.5-6.7: 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
63B: 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	0.0-3.0: 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 --- ---
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 --- ---
63D: Crystal Lake----	B	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	0.0-4.5: Moist 4.5-6.7: Wet ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
63E: Crystal Lake----	B	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	0.0-4.5: Moist 4.5-6.7: Wet ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---

Table 26.---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
77A: Auburndale-----	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	0.0-3.5: Wet 3.5-6.7: Moist ---	0.0-0.6: Moist 0.6-3.5: Wet 3.5-6.7: Moist
182B: Padus-----	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
182C: Padus-----	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
182D: Padus-----	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
192A: Worcester-----	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	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
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
215B: Pence-----	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
215C: Pence-----	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
215D: Pence-----	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 26.---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
308B: Blackriver-----	B	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	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---	0.0-6.7: Moist --- ---
315A: Rib-----	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
324A: Maplehurst-----	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	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: 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
345B: 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 --- ---	0.0-6.0: 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
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	0.0-2.0: Moist 2.0-2.5: 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 --- ---

Table 26.--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
346E: Newot, 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
Pence, 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
355B: Loyal-----	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 --- ---	0.0-6.0: 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
355C: Loyal-----	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 --- ---	0.0-6.0: 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
356A: Withee-----	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
357A: Marshfield-----	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	0.0-3.5: Wet 3.5-6.7: Moist ---	0.0-0.6: Moist 0.6-3.5: Wet 3.5-6.7: Moist
408A: Lupton-----	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 26.--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
408A: 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
414A: 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
457B: 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 --- ---	0.0-6.0: 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 --- ---	0.0-6.0: 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
457C: 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 --- ---	0.0-6.0: 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 --- ---	0.0-6.0: 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 26.---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
515A: Manitowish-----	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
525B: Newood, very stony-----	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 --- ---
Padwood-----	B	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	0.0-2.0: 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 --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist
Tipler-----	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
527B: Padwood-----	B	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	0.0-2.0: 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 --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist
537D: Newot, 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

Table 26.--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
537D: Newood, very stony-----	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 --- ---
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
545C: 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 --- ---	0.0-6.0: 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
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
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
560A: Worwood-----	C	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 4.0-6.0: Moist
571E: Pelissier-----	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 26.--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
612A: Magnor, very stony-----	C	0.0-2.5: Moist	0.0-2.5: Moist	0.0-1.5: Moist	0.0-0.5: Moist	0.0-1.0: Moist	0.0-2.5: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-3.0: Moist	0.0-2.0: Moist	0.0-1.0: Moist	0.0-1.5: Moist
		2.5-3.5: Wet	2.5-3.5: Wet	1.5-3.5: Wet	0.5-3.5: Wet	1.0-3.5: Wet	2.5-3.5: Wet	---	---	3.0-3.5: Wet	2.0-3.5: Wet	1.0-3.5: Wet	1.5-3.5: Wet
		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	---	---	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist
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	0.0-1.0: 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	1.0-6.7: Wet	2.0-6.7: Wet
623A: Capitola, very stony-----	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	0.0-1.0: 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	1.0-6.7: Wet	2.0-6.7: Wet
632B: Aftad-----	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	---
637B: Newood, very stony-----	C	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	---

Table 26.--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
637C: Newood, very stony-----	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 --- ---
642B: Pesabic, 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
Capitola, very stony-----	B/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	0.0-1.0: Moist 1.0-2.5: 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
Newood, very stony-----	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 --- ---
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	0.0-2.0: Moist 2.0-2.5: 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 --- ---

Table 26.--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
683A: Tipler-----	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
737D: Santiago, very stony-----	C	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-6.7: Moist
748A: Brander-----	B	0.0-4.5: Moist 4.5-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: 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
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
757B: 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
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 ---	0.0-6.0: 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 26.--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
757B: Magnor-----	C	0.0-2.5: Moist	0.0-2.5: Moist	0.0-1.5: Moist	0.0-0.5: Moist	0.0-1.0: Moist	0.0-2.5: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-3.0: Moist	0.0-2.0: Moist	0.0-1.0: Moist	0.0-1.5: Moist
		2.5-3.5: Wet	2.5-3.5: Wet	1.5-3.5: Wet	0.5-3.5: Wet	1.0-3.5: Wet	2.5-3.5: Wet	--- ---	--- ---	3.0-3.5: Wet	2.0-3.5: Wet	1.0-3.5: Wet	1.5-3.5: Wet
		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	--- ---	--- ---	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist
Freeon-----	C	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.5: Moist	0.0-1.0: Moist	0.0-1.5: Moist	0.0-6.7: Moist	0.0-6.0: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-2.5: Moist	0.0-2.0: Moist	0.0-2.5: Moist
		--- ---	--- ---	2.5-3.5: Wet	1.0-3.5: Wet	1.5-3.5: Wet	--- ---	--- ---	--- ---	--- ---	2.5-3.5: Wet	2.0-3.5: Wet	2.5-3.5: Wet
		--- ---	--- ---	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
766A: Moppet-----	B	0.0-4.0: Moist	0.0-4.0: Moist	0.0-3.5: Moist	0.0-2.5: Moist	0.0-3.0: Moist	0.0-3.5: Moist	0.0-4.0: Moist	0.0-4.5: Moist	0.0-4.0: Moist	0.0-3.5: Moist	0.0-3.0: Moist	0.0-3.5: Moist
		4.0-6.7: Wet	4.0-6.7: Wet	3.5-6.7: Wet	2.5-6.7: Wet	3.0-6.7: Wet	3.5-6.7: Wet	4.0-6.7: Wet	4.5-6.7: Wet	4.0-6.7: Wet	3.5-6.7: Wet	3.0-6.7: Wet	3.5-6.7: Wet
822A: Comstock-----	C	0.0-2.5: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-0.5: Moist	0.0-1.0: Moist	0.0-2.5: Moist	0.0-2.5: Moist	0.0-4.0: Moist	0.0-5.0: Moist	0.0-2.0: Moist	0.0-1.0: Moist	0.0-2.0: Moist
		2.5-3.0: Wet	2.5-3.5: Wet	2.5-5.0: Wet	0.5-6.7: Wet	1.0-6.7: Wet	2.5-6.7: Wet	2.5-6.7: Wet	4.0-6.7: Wet	5.0-6.7: Wet	2.0-2.5: Wet	1.0-2.5: Wet	2.0-3.0: Wet
		3.0-6.7: Moist	3.5-6.7: Moist	5.0-6.7: Moist	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	2.5-5.0: Moist	2.5-5.5: Moist	3.0-6.0: Moist
		--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	5.0-6.7: Wet	5.5-6.7: Wet	6.0-6.7: Wet
Magnor, very stony-----	C	0.0-2.5: Moist	0.0-2.5: Moist	0.0-1.5: Moist	0.0-0.5: Moist	0.0-1.0: Moist	0.0-2.5: Moist	0.0-6.7: Moist	0.0-6.7: Moist	0.0-3.0: Moist	0.0-2.0: Moist	0.0-1.0: Moist	0.0-1.5: Moist
		2.5-3.5: Wet	2.5-3.5: Wet	1.5-3.5: Wet	0.5-3.5: Wet	1.0-3.5: Wet	2.5-3.5: Wet	--- ---	--- ---	3.0-3.5: Wet	2.0-3.5: Wet	1.0-3.5: Wet	1.5-3.5: Wet
		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	--- ---	--- ---	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist	3.5-6.7: Moist
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	0.0-1.0: 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	1.0-6.7: Wet	2.0-6.7: Wet

Table 26.---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
837E: Newot, 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
848A: Ribriver-----	B	0.0-4.5: Moist 4.5-6.7: Wet	0.0-5.5: Moist 5.5-6.7: Wet	0.0-3.0: Moist 3.0-6.7: Wet	0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	0.0-3.5: Moist 3.5-6.7: 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
863B: 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	0.0-3.0: 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 --- ---
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 --- ---	0.0-6.0: 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
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	0.0-2.0: Moist 2.0-2.5: 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 --- ---
923A: Capitola, very stony-----	B/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	0.0-1.0: Moist 1.0-2.5: 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

Table 26.--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
923A: Cebana, very stony-----	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	0.0-3.5: Wet 3.5-6.7: ---	0.0-0.6: Moist 0.6-3.5: Wet 3.5-6.7: Moist
956B: 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
957B: 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 --- --- ---	0.0-6.0: 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
957C: 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 --- --- ---	0.0-6.0: 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
2015. Pits													

Table 26.---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	
3011A: Barronett-----	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 --- --- ---	0.0-6.7: 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
3456A: 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	
3525C: Newood, very stony-----	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 --- ---	
Padwood-----	B	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	0.0-2.0: 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 --- ---	0.0-3.5: Moist 3.5-4.0: Wet 4.0-6.7: Moist	0.0-2.5: Moist 2.5-4.0: Wet 4.0-6.7: Moist	0.0-3.0: Moist 3.0-4.0: Wet 4.0-6.7: Moist	
Padus-----	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 26.---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
3546C: Newood, very stony-----	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 --- ---
Pence, 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
3556C: Newood, very stony-----	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 --- ---
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
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
3561A: Pesabic, 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

Table 26.--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	
3561A: Worwood-----	C	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 3.0-4.0: Wet 4.0-6.7: Moist	0.0-6.7: Moist --- --- --- ---	0.0-6.7: Moist --- --- 4.0-6.7: 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 4.0-6.0: Moist
Worcester-----	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	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet	
3569C: Newood, very stony-----	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 --- ---	
Pesabic, 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	
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	
3666B: Pesabic, 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	

Table 26.--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
3863C: 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 ---
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 ---	0.0-6.0: 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
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
9052A: 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
Capitola, very stony-----	B/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	0.0-1.0: Moist 1.0-2.5: 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
Lupton-----	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
9055A: 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
9060D: Pelissier-----	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 26.---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
9071B: 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 --- ---	0.0-6.0: 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
9077C: 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 --- ---	0.0-6.0: 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
9078A: 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 --- ---	0.0-6.0: 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
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
Ossmer-----	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	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
9081C: Newot, 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

Table 26.---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
9082B: Newood, very stony-----	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 --- ---
9083A: 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	0.0-3.0: 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 --- ---
9083B: 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	0.0-3.0: 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 --- ---
9086A: 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 --- ---	0.0-6.0: 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
9087C: 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 --- ---

Table 26.--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
9087C: 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 --- ---	0.0-6.0: 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
Newot, 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
9088A: Newood, very stony-----	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 --- ---
Capitola, very stony-----	B/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	0.0-1.0: Moist 1.0-2.5: Wet 2.5-6.7: Moist	0.0-2.5: Wet Moist --- ---	0.0-2.5: Wet 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 Moist --- ---	0.0-0.5: Moist 0.5-2.5: Wet 2.5-6.7: Moist
9089B: Newood, very stony-----	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 --- ---
Lupton-----	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 26.--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
9090C: Newood, very stony-----	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 --- ---
Newot, 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
Lupton-----	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
9092D: Newot, 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
9093C: Pence-----	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
Padus-----	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
9096C: Newot, 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
Pesabic, 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
Lupton-----	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 26.--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
9097B: Newood, very stony-----	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 --- ---
Padus, 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
9098A: 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	0.0-1.0: Moist 1.0-6.7: Wet	0.0-2.0: Moist 2.0-6.7: Wet
9099B: 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
9197C: Pelissier-----	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 ---
M-W. Miscellaneous water													
W. Water													

Table 27.--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
22A: Comstock-----	None	None	None	None	None	None	None	None	None	None	None	None
24A: Poskin-----	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
43D: Antigo-----	None	None	None	None	None	None	None	None	None	None	None	None
48B: Brill-----	None	None	None	None	None	None	None	None	None	None	None	None
57B: Spencer-----	None	None	None	None	None	None	None	None	None	None	None	None
59A: Almena-----	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
63D: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
63E: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
77A: Auburndale-----	None	None	None	None	None	None	None	None	None	None	None	None
182B: Padus-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
182C: Padus-----	None	None	None	None	None	None	None	None	None	None	None	None
182D: Padus-----	None	None	None	None	None	None	None	None	None	None	None	None
192A: Worcester-----	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
215B: Pence-----	None	None	None	None	None	None	None	None	None	None	None	None
215C: Pence-----	None	None	None	None	None	None	None	None	None	None	None	None
215D: Pence-----	None	None	None	None	None	None	None	None	None	None	None	None
308B: Blackriver-----	None	None	None	None	None	None	None	None	None	None	None	None
315A: Rib-----	None	None	None	None	None	None	None	None	None	None	None	None
324A: Maplehurst-----	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
345B: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Sconsin-----	None	None	None	None	None	None	None	None	None	None	None	None
346E: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Pence, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
355B: Loyal-----	None	None	None	None	None	None	None	None	None	None	None	None
355C: Loyal-----	None	None	None	None	None	None	None	None	None	None	None	None
356A: Withee-----	None	None	None	None	None	None	None	None	None	None	None	None
357A: Marshfield-----	None	None	None	None	None	None	None	None	None	None	None	None
408A: Lupton-----	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
414A: 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
457B: 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
457C: 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
515A: Manitowish-----	None	None	None	None	None	None	None	None	None	None	None	None
525B: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Padwood-----	None	None	None	None	None	None	None	None	None	None	None	None
Tipler-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
527B: Padwood-----	None	None	None	None	None	None	None	None	None	None	None	None
537D: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Newood, very stony-----	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
545C: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Antigo-----	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
560A: Worwood-----	None	None	None	None	None	None	None	None	None	None	None	None
571E: Pelissier-----	None	None	None	None	None	None	None	None	None	None	None	None
612A: Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Ossmer-----	None	None	None	None	None	None	None	None	None	None	None	None
623A: Capitola, very stony-----	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
632B: Aftad-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
637B: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
637C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
642B: Pesabic, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Capitola, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
648B: Sconsin-----	None	None	None	None	None	None	None	None	None	None	None	None
683A: Tipler-----	None	None	None	None	None	None	None	None	None	None	None	None
737D: Santiago, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
748A: Brander-----	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
757B: Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
757B:												
Magnor-----	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
766A:												
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
822A:												
Comstock-----	None	None	None	None	None	None	None	None	None	None	None	None
Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Ossmer-----	None	None	None	None	None	None	None	None	None	None	None	None
837E:												
Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
848A:												
Ribriver-----	None	None	None	None	None	None	None	None	None	None	None	None
863B:												
Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Sconsin-----	None	None	None	None	None	None	None	None	None	None	None	None
923A:												
Capitola, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Cebana, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
956B:												
Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
957B: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
957C: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
2015. Pits												
3011A: Barronett-----	None	None	None	None	None	None	None	None	None	None	None	None
3456A: 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
3525C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Padwood-----	None	None	None	None	None	None	None	None	None	None	None	None
Padus-----	None	None	None	None	None	None	None	None	None	None	None	None
3546C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Pence, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
3556C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Magnor, very stony-----	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

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
3561A: Pesabic, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Worwood-----	None	None	None	None	None	None	None	None	None	None	None	None
Worcester-----	None	None	None	None	None	None	None	None	None	None	None	None
3569C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Pesabic, very stony-----	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
3666B: Pesabic, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
3863C: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Antigo-----	None	None	None	None	None	None	None	None	None	None	None	None
9052A: Cathro-----	None	None	None	None	None	None	None	None	None	None	None	None
Capitola, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Lupton-----	None	None	None	None	None	None	None	None	None	None	None	None
9055A: Loxley-----	None	None	None	None	None	None	None	None	None	None	None	None
9060D: Pelissier-----	None	None	None	None	None	None	None	None	None	None	None	None
9071B: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
9077C: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9078A: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Ossmer-----	None	None	None	None	None	None	None	None	None	None	None	None
9081C: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9082B: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9083A: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
9083B: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
9086A: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9087C: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9088A: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Capitola, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
9089B: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Lupton-----	None	None	None	None	None	None	None	None	None	None	None	None
9090C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Lupton-----	None	None	None	None	None	None	None	None	None	None	None	None
9092D: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9093C: Pence-----	None	None	None	None	None	None	None	None	None	None	None	None
Padus-----	None	None	None	None	None	None	None	None	None	None	None	None
9096C: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Pesabic, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Lupton-----	None	None	None	None	None	None	None	None	None	None	None	None
9097B: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Padus, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9098A: Oesterle-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 27.--Flooding Frequency and Duration--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
9099B: Antigo-----	None	None	None	None	None	None	None	None	None	None	None	None
9197C: Pelissier-----	None	None	None	None	None	None	None	None	None	None	None	None
M-W. Miscellaneous water												
W. Water												

Table 28.--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
22A: Comstock-----	None	None	None	None	None	None	None	None	None	None	None	None
24A: Poskin-----	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
43D: Antigo-----	None	None	None	None	None	None	None	None	None	None	None	None
48B: Brill-----	None	None	None	None	None	None	None	None	None	None	None	None
57B: Spencer-----	None	None	None	None	None	None	None	None	None	None	None	None
59A: Almena-----	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
63D: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
63E: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
77A: Auburndale-----	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
182B: Padus-----	None	None	None	None	None	None	None	None	None	None	None	None
182C: Padus-----	None	None	None	None	None	None	None	None	None	None	None	None
182D: Padus-----	None	None	None	None	None	None	None	None	None	None	None	None
192A: Worcester-----	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
215B: Pence-----	None	None	None	None	None	None	None	None	None	None	None	None
215C: Pence-----	None	None	None	None	None	None	None	None	None	None	None	None
215D: Pence-----	None	None	None	None	None	None	None	None	None	None	None	None
308B: Blackriver-----	None	None	None	None	None	None	None	None	None	None	None	None
315A: Rib-----	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
324A: Maplehurst-----	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
345B: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Sconsin-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
346E: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Pence, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
355B: Loyal-----	None	None	None	None	None	None	None	None	None	None	None	None
355C: Loyal-----	None	None	None	None	None	None	None	None	None	None	None	None
356A: Withee-----	None	None	None	None	None	None	None	None	None	None	None	None
357A: Marshfield-----	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
408A: Lupton-----	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
414A: 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

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
457B:												
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
457C:												
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
515A:												
Manitowish-----	None	None	None	None	None	None	None	None	None	None	None	None
525B:												
Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Padwood-----	None	None	None	None	None	None	None	None	None	None	None	None
Tipler-----	None	None	None	None	None	None	None	None	None	None	None	None
527B:												
Padwood-----	None	None	None	None	None	None	None	None	None	None	None	None
537D:												
Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	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
545C:												
Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Antigo-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 28.--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
560A: Worwood-----	None	None	None	None	None	None	None	None	None	None	None	None
571E: Pelissier-----	None	None	None	None	None	None	None	None	None	None	None	None
612A: Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Ossmer-----	None	None	None	None	None	None	None	None	None	None	None	None
623A: Capitola, very stony-----	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
624A: Ossmer-----	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
637B: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
637C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
642B: Pesabic, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Capitola, very stony-----	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
Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
648B: Sconsin-----	None	None	None	None	None	None	None	None	None	None	None	None
683A: Tipler-----	None	None	None	None	None	None	None	None	None	None	None	None
737D: Santiago, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
748A: Brander-----	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
757B: Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Freeon, 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
Freeon-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
766A: Moppet-----	None	None	None	None	None	None	None	None	None	None	None	None
822A: Comstock-----	None	None	None	None	None	None	None	None	None	None	None	None
Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Ossmer-----	None	None	None	None	None	None	None	None	None	None	None	None
837E: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
848A: Ribriver-----	None	None	None	None	None	None	None	None	None	None	None	None
863B: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Sconsin-----	None	None	None	None	None	None	None	None	None	None	None	None
923A: Capitola, very stony-----	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
Cebana, very stony-----	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
956B: Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
957B: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
957C: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
2015. Pits												
3011A: Barronett-----	None	None	None	Frequent Long Depth: 0.5	Frequent Long Depth: 0.5	None	None	None	None	None	None	None
3456A: 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
3525C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Padwood-----	None	None	None	None	None	None	None	None	None	None	None	None
Padus-----	None	None	None	None	None	None	None	None	None	None	None	None
3546C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Pence, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
3556C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
3556C: 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
3561A: Pesabic, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Worwood-----	None	None	None	None	None	None	None	None	None	None	None	None
Worcester-----	None	None	None	None	None	None	None	None	None	None	None	None
3569C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Pesabic, very stony-----	None	None	None	None	None	None	None	None	None	None	None	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
3666B: Pesabic, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
3863C: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Antigo-----	None	None	None	None	None	None	None	None	None	None	None	None
9052A: 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

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
9052A: Capitola, very stony-----	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
Lupton-----	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
9055A: Loxley-----	None	None	None	Occasional Long Depth: 0.5	None	None	None	None	None	None	None	None
9060D: Pelissier-----	None	None	None	None	None	None	None	None	None	None	None	None
9071B: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9077C: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9078A: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Magnor, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Ossmer-----	None	None	None	None	None	None	None	None	None	None	None	None
9081C: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9082B: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
9083A: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
9083B: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
9086A: Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9087C: Crystal Lake----	None	None	None	None	None	None	None	None	None	None	None	None
Freeon, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9088A: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Capitola, very stony-----	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
9089B: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Lupton-----	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
9090C: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
9090C: Lupton-----	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
9092D: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9093C: Pence-----	None	None	None	None	None	None	None	None	None	None	None	None
Padus-----	None	None	None	None	None	None	None	None	None	None	None	None
9096C: Newot, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Pesabic, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Lupton-----	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
9097B: Newood, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
Padus, very stony-----	None	None	None	None	None	None	None	None	None	None	None	None
9098A: Oesterle-----	None	None	None	None	None	None	None	None	None	None	None	None
9099B: Antigo-----	None	None	None	None	None	None	None	None	None	None	None	None
9197C: Pelissier-----	None	None	None	None	None	None	None	None	None	None	None	None

Table 28.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and soil name	January	February	March	April	May	June	July	August	September	October	November	December
M-W. Miscellaneous water												
W. Water												

Table 29.--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	Hardness	Initial	Total		Uncoated steel	Concrete
22A: Comstock-----	---	>80	---	---	---	High	Moderate	High
24A: Poskin-----	---	>80	---	---	---	High	Low	Moderate
43B: Antigo-----	---	>80	---	---	---	Moderate	Low	High
43C: Antigo-----	---	>80	---	---	---	Moderate	Low	High
43D: Antigo-----	---	>80	---	---	---	Moderate	Low	High
48B: Brill-----	---	>80	---	---	---	High	Moderate	Moderate
57B: Spencer-----	---	>80	---	---	---	High	Low	High
59A: Almena-----	---	>80	---	---	---	High	Low	Moderate
63B: Crystal Lake-----	---	>80	---	---	---	High	Low	High
63C: Crystal Lake-----	---	>80	---	---	---	High	Low	High
63D: Crystal Lake-----	---	>80	---	---	---	High	Low	High
63E: Crystal Lake-----	---	>80	---	---	---	High	Low	High
77A: Auburndale-----	---	>80	---	---	---	High	High	Moderate
182B: Padus-----	---	>80	---	---	---	Moderate	Low	Moderate

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
182C: Padus-----	---	>80	---	---	---	Moderate	Low	Moderate
182D: Padus-----	---	>80	---	---	---	Moderate	Low	Moderate
192A: Worcester-----	---	>80	---	---	---	High	High	High
193A: Minocqua-----	---	>80	---	---	---	High	High	High
215B: Pence-----	---	>80	---	---	---	Low	Low	Moderate
215C: Pence-----	---	>80	---	---	---	Low	Low	Moderate
215D: Pence-----	---	>80	---	---	---	Low	Low	Moderate
308B: Blackriver-----	---	>80	---	---	---	High	Moderate	Moderate
315A: Rib-----	---	>80	---	---	---	High	High	High
324A: Maplehurst-----	---	>80	---	---	---	High	Low	Moderate
337A: Plover-----	---	>80	---	---	---	High	Moderate	High
345B: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
Sconsin-----	---	>80	---	---	---	Moderate	Low	High
346E: Newot, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	High
Pence, very stony-----	---	>80	---	---	---	Low	Low	Moderate

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
355B: Loyal-----	---	>80	---	---	---	Moderate	Moderate	High
355C: Loyal-----	---	>80	---	---	---	Moderate	Moderate	High
356A: Withee-----	---	>80	---	---	---	High	Low	High
357A: Marshfield-----	---	>80	---	---	---	High	Moderate	High
408A: Lupton-----	---	>80	---	6-18	50-55	High	High	Low
Cathro-----	---	>80	---	4-12	19-22	High	High	Low
414A: Loxley-----	---	>80	---	6-18	50-55	High	High	High
Beseman-----	---	>80	---	4-18	12-36	High	High	High
457B: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
Freeon-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
457C: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
Freeon-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
515A: Manitowish-----	---	>80	---	---	---	Low	Low	Moderate
525B: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
Padwood-----	---	>80	---	---	---	Moderate	Moderate	High
Tipler-----	---	>80	---	---	---	Moderate	Moderate	High

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
527B: Padwood-----	---	>80	---	---	---	Moderate	Moderate	High
537D: Newot, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	High
Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
Cathro-----	---	>80	---	4-12	19-22	High	High	Low
545C: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
Antigo-----	---	>80	---	---	---	Moderate	Low	High
555A: Fordum-----	---	>80	---	---	---	High	High	High
560A: Worwood-----	---	>80	---	---	---	High	High	High
571E: Pelissier-----	---	>80	---	---	---	Low	Low	Moderate
612A: Magnor, very stony-----	Dense material	40-60	Moderately cemented	---	---	High	Low	Moderate
Ossmer-----	---	>80	---	---	---	High	Moderate	Moderate
623A: Capitola, very stony---	Dense material	20-40	Moderately cemented	---	---	High	High	High
624A: Ossmer-----	---	>80	---	---	---	High	Moderate	Moderate
632B: Aftad-----	---	>80	---	---	---	Moderate	Low	Moderate

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
637B: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
637C: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
642B: Pesabic, very stony----	Dense material	20-40	Moderately cemented	---	---	High	Moderate	High
Capitola, very stony---	Dense material	20-40	Moderately cemented	---	---	High	High	High
Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
648B: Sconsin-----	---	>80	---	---	---	Moderate	Low	High
683A: Tipler-----	---	>80	---	---	---	Moderate	Moderate	High
737D: Santiago, very stony---	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	High
748A: Brander-----	---	>80	---	---	---	High	Moderate	Moderate
755A: Moppet-----	---	>80	---	---	---	Moderate	Moderate	Moderate
Fordum-----	---	>80	---	---	---	High	High	High
757B: Magnor, very stony-----	Dense material	40-60	Moderately cemented	---	---	High	Low	Moderate
Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
757B:		In		In	In			
Magnor-----	Dense material	40-60	Moderately cemented	---	---	High	Low	Moderate
Freeon-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
766A:								
Moppet-----	---	>80	---	---	---	Moderate	Moderate	Moderate
822A:								
Comstock-----	---	>80	---	---	---	High	Moderate	High
Magnor, very stony----	Dense material	40-60	Moderately cemented	---	---	High	Low	Moderate
Ossmer-----	---	>80	---	---	---	High	Moderate	Moderate
837E:								
Newot, very stony----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	High
848A:								
Ribriver-----	---	>80	---	---	---	High	Moderate	Moderate
863B:								
Crystal Lake-----	---	>80	---	---	---	High	Low	High
Freeon, very stony----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
Sconsin-----	---	>80	---	---	---	Moderate	Low	High
923A:								
Capitola, very stony---	Dense material	20-40	Moderately cemented	---	---	High	High	High
Cebana, very stony----	Dense material	40-60	Moderately cemented	---	---	High	High	High
956B:								
Magnor, very stony----	Dense material	40-60	Moderately cemented	---	---	High	Low	Moderate

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
		In		In	In			
957B: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
957C: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
2015. Pits								
3011A: Barronett-----	---	>80	---	---	---	High	Moderate	High
3456A: Magnor, very stony-----	Dense material	40-60	Moderately cemented	---	---	High	Low	Moderate
Magnor-----	Dense material	40-60	Moderately cemented	---	---	High	Low	Moderate
3525C: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
Padwood-----	---	>80	---	---	---	Moderate	Moderate	High
Padus-----	---	>80	---	---	---	Moderate	Low	Moderate
3546C: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
Pence, very stony-----	---	>80	---	---	---	Low	Low	Moderate
3556C: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
Magnor, very stony-----	Dense material	40-60	Moderately cemented	---	---	High	Low	Moderate
Cathro-----	---	>80	---	4-12	19-22	High	High	Low

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
3561A:		In		In	In			
Pesabic, very stony----	Dense material	40-60	Moderately cemented	---	---	High	Moderate	High
Worwood-----	---	>80	---	---	---	High	High	High
Worcester-----	---	>80	---	---	---	High	High	High
3569C:								
Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
Pesabic, very stony----	Dense material	40-60	Moderately cemented	---	---	High	Moderate	High
Cathro-----	---	>80	---	4-12	19-22	High	High	Low
3666B:								
Pesabic, very stony----	Dense material	40-60	Moderately cemented	---	---	High	Moderate	High
3863C:								
Crystal Lake-----	---	>80	---	---	---	High	Low	High
Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
Antigo-----	---	>80	---	---	---	Moderate	Low	High
9052A:								
Cathro-----	---	>80	---	4-12	19-22	High	High	Low
Capitola, very stony---	Dense material	20-40	Moderately cemented	---	---	High	High	High
Lupton-----	---	>80	---	6-18	50-55	High	High	Low
9055A:								
Loxley-----	---	>80	---	6-18	50-55	High	High	High
9060D:								
Pelissier-----	---	>80	---	---	---	Low	Low	Moderate

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
9071B: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
9077C: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
9078A: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
Magnor, very stony-----	Dense material	40-60	Moderately cemented	---	---	High	Low	Moderate
Ossmer-----	---	>80	---	---	---	High	Moderate	Moderate
9081C: Newot, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	High
9082B: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
9083A: Crystal Lake-----	---	>80	---	---	---	High	Low	High
9083B: Crystal Lake-----	---	>80	---	---	---	High	Low	High
9086A: Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
9087C: Crystal Lake-----	---	>80	---	---	---	High	Low	High
Freeon, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	Moderate
Newot, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	High

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
9088A: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
Capitola, very stony---	Dense material	20-40	Moderately cemented	---	---	High	High	High
9089B: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
Lupton-----	---	>80	---	6-18	50-55	High	High	Low
9090C: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High
Newot, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	High
Lupton-----	---	>80	---	6-18	50-55	High	High	Low
9092D: Newot, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	High
9093C: Pence-----	---	>80	---	---	---	Low	Low	Moderate
Padus-----	---	>80	---	---	---	Moderate	Low	Moderate
9096C: Newot, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Low	High
Pesabic, very stony----	Dense material	40-60	Moderately cemented	---	---	High	Moderate	High
Lupton-----	---	>80	---	6-18	50-55	High	High	Low
9097B: Newood, very stony-----	Dense material	40-60	Moderately cemented	---	---	Moderate	Moderate	High

Table 29.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
9097B: Padus, very stony-----	---	In >80	---	In ---	In ---	Moderate	Low	Moderate
9098A: Oesterle-----	---	>80	---	---	---	High	Low	Moderate
9099B: Antigo-----	---	>80	---	---	---	Moderate	Low	High
9197C: Pelissier-----	---	>80	---	---	---	Low	Low	Moderate
M-W. Miscellaneous water								
W. Water								

Table 30.--Engineering Index Test Data

(Dashes indicate that data were not available. LL means liquid limit; PI, plasticity index; UN, Unified; and NP, nonplastic)

Soil name and location	Parent material	Report number	Depth	Percentage passing sieve--*				Percentage smaller than--*				LL	PI	Classi- fication		
				No.	No.	No.	No.	0.05	0.02	0.005	0.002			AASHTO	UN	
				4	10	40	200	mm	mm	mm	mm					
			In													
Almena silt loam:	Loess or silty alluvium	S82WI-017-14-1	18-24	100	100	100	98	92	60	28	22	34.0	10.0	A-4 (8)	CL	
NW1/4 NW1/4 sec. 16, T. 29 N., R. 6 W., Chippewa County.	underlain by loamy till.	14-2	24-36	100	100	100	97	88	49	24	20	33.0	11.0	A-4 (8)	CL	
		14-3	48-60	96	93	82	48	42	24	11	8	20.0	4.0	A-4 (3)	SM	
Magnor silt loam:	Loess or silty alluvium	S89WI-019-43-4	21-39	83	80	65	32	27	17	10	7	16.0	2.5	A-2-4 (0)	SM	
NW1/4 NW1/4 sec. 2, T. 29 N., R. 4 W., Clark County.	underlain by dense loamy till.	43-6	45-60	88	81	66	33	26	17	10	7	14.0	1.0	A-2-4 (0)	SM	
Marshfield silt loam:	Loess or silty alluvium	S76WI-073-1-1	16-34	100	100	97	91	88	60	32	25	40.0	21.0	A-6 (12)	CL	
SW1/4 NW1/4 sec. 1, T. 26 N., R. 3 E., Marathon County.	underlain by loamy till.	1-2	34-60	91	86	74	50	47	26	13	9	25.0	8.0	A-4 (3)	CL	
Newood sandy loam:	Mostly loamy till.	S88WI-069-226-6	17-32	78	74	59	26	21	14	7	4	---	NP	A-2-4 (0)	SM	
NE1/4 NE1/4 sec. 27, T. 32 N., R. 5 E., Lincoln County.		226-7	32-41	80	73	60	24	23	19	13	9	20.7	5.8	A-2-4 (0)	SC	
		226-9	57-72	74	69	56	26	21	15	9	6	16.8	NP	A-2-4 (0)	SM	
Newood sandy loam:	Mostly loamy till.	S82WI-069-3-2&3	2-21	75	70	55	22	17	9	4	2	---	NP	A-2-4 (0)	SM	
SE1/4 SW1/4 sec. 20, T. 32 N., R. 6 E., Lincoln County.		3-4&5	21-38	83	78	63	24	19	11	4	2	---	NP	A-2-4 (0)	SM	
		3-6&7	38-52	82	78	63	26	23	15	8	6	---	NP	A-2-4 (0)	SM	
		3-8	52-60	85	79	66	28	23	14	7	5	---	NP	A-2-4 (0)	SM	

See footnote at end of table.

Table 30.--Engineering Index Test Data--Continued

Soil name and location	Parent material	Report number	Depth	Percentage passing sieve--*				Percentage smaller than--*				LL	PI	Classi- fication			
				No.	No.	No.	No.	0.05	0.02	0.005	0.002			AASHTO	UN		
				4	10	40	200	mm	mm	mm	mm						
			In														
Newood sandy loam: SE1/4 SE1/4 sec. 6, T. 29 N., R. 3 W., Clark County.	Mostly loamy till.	S89WI-019-046-5	33-48	83	78	64	31	27	19	13	10	19.5	5.9	A-2-4 (0)	SC-SM		
		046-7	56-60	86	82	69	35	31	21	11	8	16.9	3.1	A-4 (0)	SM		
Poskin silt loam: SW1/4 SW1/4 E1/2 sec. 30, T. 31 N., R. 1 E., Taylor County.	Loess or silty alluvium over loamy alluvium underlain by sandy or sandy and gravelly outwash.	S67WI-119-2-1	24-37	100	100	99	95	94	60	27	20	35.0	14.0	A-6 (10)	CL		
		2-2	48-60	40	28	8	2	2	1	1	1	---	NP	A-1-a (0)	GP		
Santiago silt loam: SE1/4 SE1/4 sec. 10, T. 29 N., R. 6 W., Chippewa County.	Loess or silty alluvium underlain by dense loamy till.	S82WI-017-13-1	13-16	98	96	95	93	86	46	21	14	25.0	5.0	A-4 (8)	CL-ML		
		13-2	19-24	88	84	74	46	40	27	13	9	25.0	9.0	A-4 (2)	SC		
		13-3	30-60	82	77	63	30	26	19	10	6	17.0	3.0	A-2-4 (0)	SM		
Withee silt loam: SW1/4 NW1/4 sec. 1, T. 28 N., R. 5 W., Chippewa County.	Loess or silty alluvium underlain by loamy till.	S82WI-017-17-1	12-18	100	100	100	98	91	53	20	14	28.0	6.0	A-4 (8)	CL-ML		
		17-2	23-34	85	83	69	39	35	25	17	13	36.0	12.0	A-6 (1)	SC		
		17-3	42-60	93	91	76	40	35	25	15	12	22.0	8.0	A-4 (1)	SC		

* Mechanical analysis according to the AASHTO designation T88-57. Results from this procedure can differ somewhat from the results obtained by the soil survey procedure of the Natural Resources Conservation Service (NRCS). In the AASHTO procedure, the fine material is analyzed by hydrometer method and the various grain-size fractions are calculated on the basis of all material up to and including that 3 inches in diameter. In the NRCS soil survey procedure, the fine material is analyzed by the pipette method and the material coarser than 2 millimeters in diameter is excluded from the calculation of grain-size fraction. The mechanical analysis data used in this table are not suitable for use in naming textural classes of soils.

Table 31.--Classification of the Soils

Soil name	Family or higher taxonomic class
Aftad-----	Coarse-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Almena-----	Fine-silty, mixed, superactive, frigid Aquic Glossudalfs
Antigo-----	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, frigid Haplic Glossudalfs
Auburndale-----	Fine-silty, mixed, superactive, frigid Mollic Epiaqualfs
Barronett-----	Fine-silty, mixed, superactive, frigid Mollic Epiaqualfs
Beseman-----	Loamy, mixed, dysic, frigid Terric Haplosaprists
Blackriver-----	Fine-silty, mixed, superactive, frigid Haplic Glossudalfs
Brander-----	Fine-silty over sandy or sandy-skeletal, mixed, superactive, frigid Oxyaquic Glossudalfs
Brill-----	Fine-silty over sandy or sandy-skeletal, mixed, superactive, frigid Haplic Glossudalfs
Capitola-----	Coarse-loamy, mixed, superactive, frigid Mollic Epiaqualfs
Cathro-----	Loamy, mixed, euic, frigid Terric Haplosaprists
Cebana-----	Coarse-loamy, mixed, superactive, frigid Mollic Glossaqualfs
Comstock-----	Fine-silty, mixed, superactive, frigid Aquic Glossudalfs
Crystal Lake-----	Fine-silty, mixed, superactive, frigid Oxyaquic Glossudalfs
Fordum-----	Coarse-loamy, mixed, superactive, nonacid, frigid Mollic Fluvaquents
Freeon-----	Coarse-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Loxley-----	Dysic, frigid Typic Haplosaprists
Loyal-----	Fine-loamy, mixed, superactive, frigid Oxyaquic Glossudalfs
Lupton-----	Euic, frigid Typic Haplosaprists
Magnor-----	Coarse-loamy, mixed, superactive, frigid Aquic Glossudalfs
Manitowish-----	Sandy, mixed, frigid Oxyaquic Haplorthods
Maplehurst-----	Fine-silty, mixed, superactive, frigid Aquic Glossudalfs
Marshfield-----	Fine-loamy, mixed, superactive, frigid Mollic Epiaqualfs
Minocqua-----	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, nonacid, frigid Typic Endoaquepts
Moppet-----	Coarse-loamy, mixed, superactive, frigid Oxyaquic Dystrudepts
Newood-----	Coarse-loamy, mixed, superactive, frigid Alfic Oxyaquic Haplorthods
Newot-----	Coarse-loamy, mixed, superactive, frigid Alfic Haplorthods
Oesterle-----	Coarse-loamy, mixed, superactive, frigid Aquic Glossudalfs
Ossmer-----	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, frigid Aquic Glossudalfs
Padus-----	Coarse-loamy, mixed, superactive, frigid Alfic Haplorthods
Padwood-----	Coarse-loamy, mixed, superactive, frigid Alfic Oxyaquic Haplorthods
Pelissier-----	Sandy-skeletal, mixed, frigid Entic Haplorthods
Pence-----	Sandy, mixed, frigid Typic Haplorthods
Pesabic-----	Coarse-loamy, mixed, superactive, frigid Alfic Epiaquods
Plover-----	Coarse-loamy, mixed, superactive, frigid Aquic Glossudalfs
Poskin-----	Fine-silty over sandy or sandy-skeletal, mixed, superactive, frigid Aquic Glossudalfs
Rib-----	Fine-silty over sandy or sandy-skeletal, mixed, superactive, frigid Mollic Endoaqualfs
Ribriver-----	Fine-silty, mixed, superactive, frigid Oxyaquic Glossudalfs
Santiago-----	Coarse-loamy, mixed, superactive, frigid Haplic Glossudalfs
Sconsin-----	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, frigid Haplic Glossudalfs
Spencer-----	Fine-silty, mixed, superactive, frigid Oxyaquic Glossudalfs
Tipler-----	Coarse-loamy, mixed, superactive, frigid Alfic Oxyaquic Haplorthods
Withee-----	Fine-loamy, mixed, superactive, frigid Aquic Glossudalfs
Worcester-----	Coarse-loamy, mixed, superactive, frigid Argic Endoaquods
Worwood-----	Coarse-loamy, mixed, superactive, frigid Alfic Epiaquods