United States
Department of
Agriculture

Natural
Resources
Conservation
Service

In cooperation with Illinois Agricultural Experiment Station

Soil Survey of Henry County, Illinois

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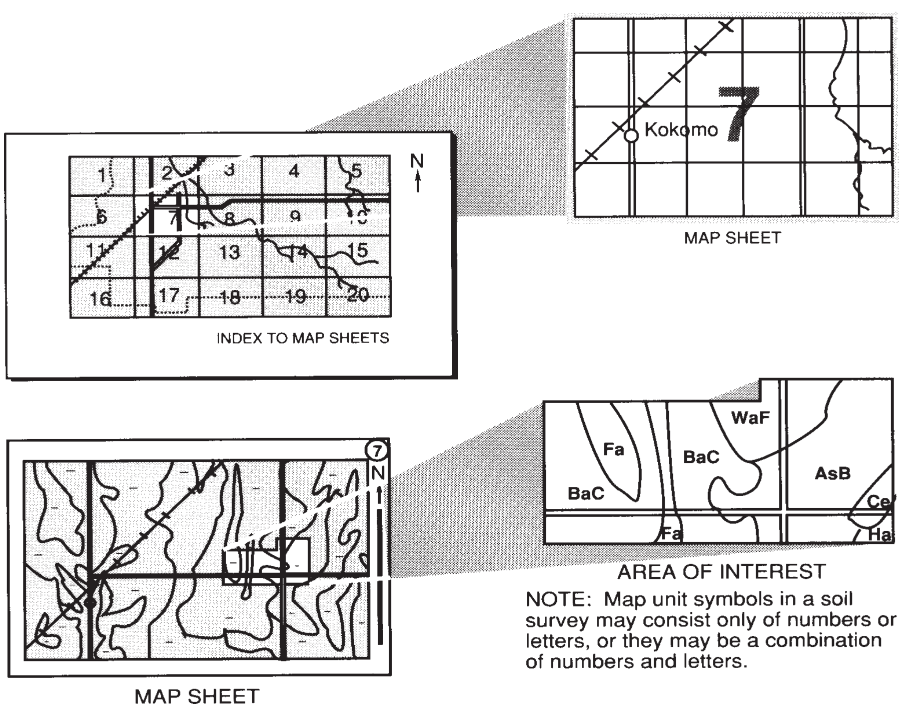
How To Use This Soil Survey

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

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

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

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



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

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

Major fieldwork for this soil survey was completed in 1998. Soil names and descriptions were approved in 1998. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1998. This survey was made cooperatively by the Natural Resources Conservation Service and the Illinois Agricultural Experiment Station. It is part of the technical assistance furnished to the Henry County Soil and Water Conservation District. Financial assistance was provided by the County Board and the Illinois Department of Agriculture.

Cover: Stable dunes in areas of Oakville soils are used mainly as woodland or pasture. Montgomery soils are on the lake plain in the foreground.

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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Issued 2004

Numerical Index to Map Units

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 detailed soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

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State Conservationist
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Soil Survey of
Henry County, Illinois

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United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with the Illinois Agricultural Experiment Station

Henry County is in northwestern Illinois (fig. 1). It has an area of 528,120 acres, or 826 square miles. It is bounded by Whiteside County on the north, Bureau and Stark Counties on the east, Mercer and Rock Island Counties on the west, Knox and Stark Counties on the south, and the Rock River in the northwest corner.

Henry County was established in 1837. In 2000, the population of the county was 51,020 (U.S. Department of Commerce, 2002). Cambridge, the county seat, had a population of 2,180. Kewanee, the largest town, had a population of 12,944.

This soil survey updates the survey of Henry County published in 1984 (Elmer, 1984). It provides additional information and has larger maps, which show the soils in greater detail.

General Nature of the County

This section provides some general information about Henry County. It describes transportation facilities and industry; farming; relief, physiography, and drainage; and climate.

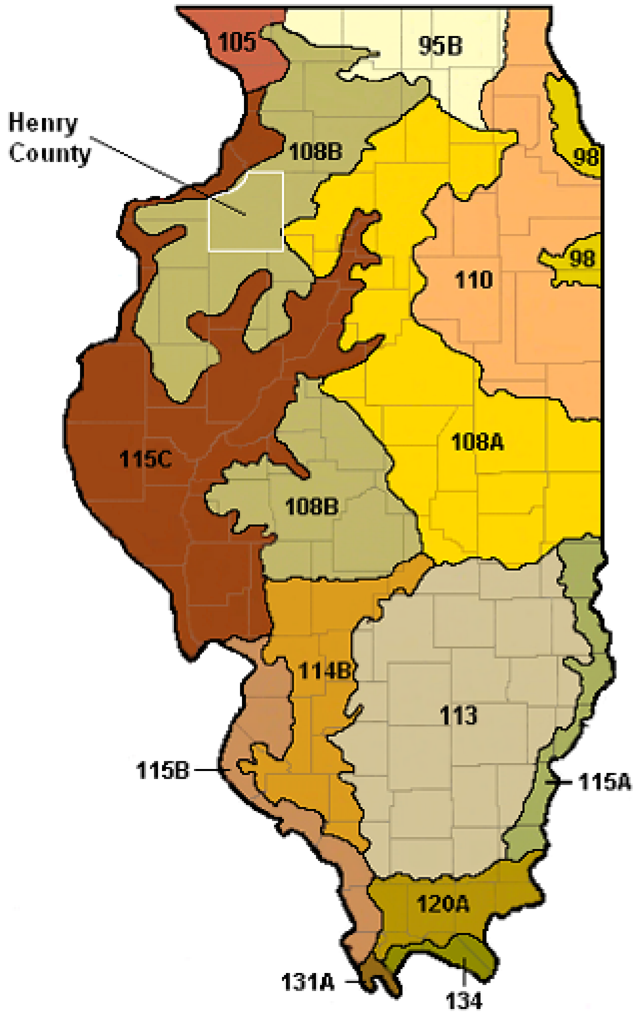
Transportation Facilities and Industry

Henry County has a well developed system of transportation. Interstate Highway 74 and U.S. Highway 150 cross the county from north to south. Interstate Highway 80 and U.S. Highways 6 and 34 cross the county from east to west. Several state roads also cross the county. The main secondary roads are blacktopped. Most rural areas are accessible by all-weather roads. Railroads furnish freight service to the county.

Several industries are established in the county. These include manufacturers of farm and other equipment and concrete and building material. The factories are at Kewanee, Galva, and Geneseo. A large limestone quarry is at Cleveland. A number of pits provide crushed rock for roads and sand and gravel for building material. Hybrid seed corn is grown in the county. A commercial seed corn company is at Geneseo. Strip mining for coal in the past has significantly altered the use and productivity of about 3,000 acres in the east-central part of the county.

Farming

Farming has been a major enterprise in Henry County since its settlement. In 2000, there were 1,344 operating farms in the county (Illinois Agricultural Statistics Service, 2001). The average farm size is about 340 acres. Some livestock is raised on about 80 percent of the farms. Much of the grain produced on the farms is fed to the livestock.



LEGEND

95B—Southern Wisconsin and Northern Illinois Drift Plain

98—Southern Michigan and Northern Indiana Drift Plain

105—Northern Mississippi Valley Loess Hills

108A and 108B—Illinois and Iowa Deep Loess and Drift

110—Northern Illinois and Indiana Heavy Till Plain

113—Central Claypan Area

114B—Southern Illinois and Indiana Thin Loess and Till Plain

115A, 115B, and 115C—Central Mississippi Valley Wooded Slopes

120A—Kentucky and Indiana Sandstone and Shale Hills and Valleys

131A—Southern Mississippi Valley Alluvium

134—Southern Mississippi Valley Silty Uplands

Figure 1.—Location of Henry County and major land resource areas (MLRAs) in Illinois.

Corn, soybeans, and hay are the main crops. In 2000, the acreage used for corn was 210,000, the acreage used for soybeans was 165,000, and the acreage used for hay was 12,700 (Illinois Agricultural Statistics Service, 2001).

Hogs and cattle are the main livestock. In 2000, the total number of swine was 195,400 and the total number of cattle was 50,900 (Illinois Agricultural Statistics Service, 2001).

Relief, Physiography, and Drainage

Dr. Richard C. Anderson, retired professor, Department of Geology, Augustana College, helped prepare this section.

The topography of Henry County consists of upland plains; dissected valley sides; a broad, sandy plain that has dunes; and flood plains (fig. 2). This landscape is the result of the action of continental glaciers in the recent geologic past and of postglacial stream erosion (Leighton and Brophy, 1961). The gently rolling uplands are the result of glacial deposition, and the dissected valley sides and flood plains are the result of postglacial stream erosion. The broad, sandy plain that has dunes is a glacial outwash plain deposited by meltwater.

The upland plains are remnants of a formerly continuous surface of glacial deposits (Leighton and Brophy, 1961). In Henry County, they are at elevations ranging from less than 650 feet above sea level in the northwest to 875 feet in the southeast. Although largely of glacial origin, they are covered by 10 feet or more of wind-deposited loess, which reaches a maximum thickness—more than 50 feet—on the bluffs south and east of Geneseo. The upland plains function as stream divides separating adjacent stream drainage basins. They are surrounded by innumerable tributary valleys that drain into the larger streams in the county. The dissected valley sides are in the steepest and most rugged parts of the county. The relief along the dissected valley sides is as much as 150 feet along the bluffs of the Rock River downstream from Green Rock. Elsewhere, the relief from the uplands to the adjacent valley floor rarely exceeds 100 feet.

The northeastern part of the county is a broad, sandy plain where stabilized sand dunes are very common. The sand was deposited by glacial meltwater when the front of the glacier was east of Henry County in a position now marked by the Bloomington Moraine in Bureau County. In Henry County, the elevation of the plain ranges from 625 feet above sea level in the east to 600 feet in the west. The sand dunes are most prominent in northeast- to southwest-trending zones lying north of the Green River. In these zones, the dunes lie directly southeast of the broad, shallow valleys that cross the area from northeast to southwest and drain toward the Green River. Aside from the dunes, many of which rise 50 to 100 feet above the level of the plain, the relief of the plain is very low, generally less than 25 feet.

Flood plains occur along most of the streams in the county. The broadest are those along the largest streams—the Rock River, the Green River, and the Edwards River. Flood plains are the floors of the valleys, which have been cut by the streams. They are subject to periodic flooding. They are underlain by river-deposited silt, clay, and sand that, in turn, overlie consolidated limestone or shale bedrock. Along the Rock River, bedrock is at a depth of less than 10 feet in many places. In some areas along the other streams in the county, the bedrock is at a depth of 100 feet or more. Terraces underlain by fine sand or small amounts of gravel are common on the flood plains.

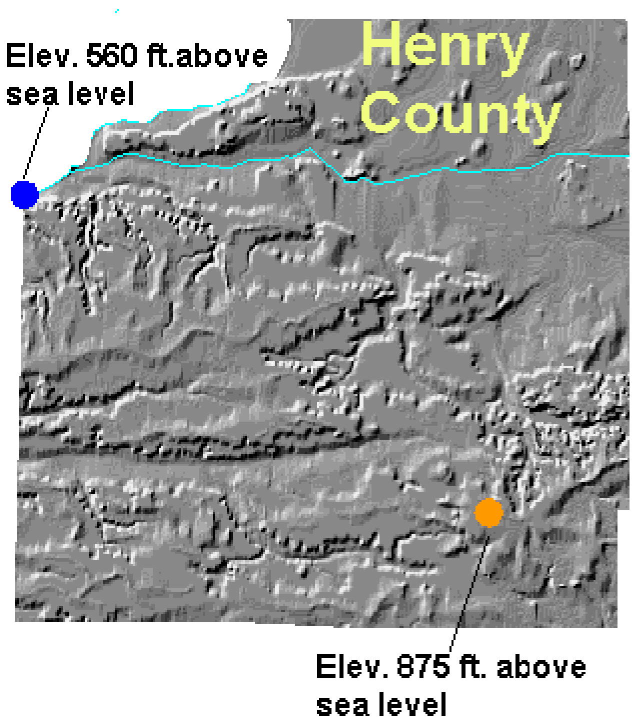


Figure 2.—A physiographic map of Henry County.

Climate

Henry County is cold in winter. The summers are generally hot but have occasional cool spells. Precipitation falls as snow during frequent snowstorms in winter and chiefly as rain showers, which often are heavy, during the warmer periods, when warm moist air moves in from the south. The amount of annual rainfall usually is adequate for corn, soybeans, and small grain.

Table 1 provides data on temperature and precipitation for the survey area as recorded at Geneseo during 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 length of the growing season.

In winter, the average temperature is 24 degrees F and the average monthly minimum temperature is 17 degrees. The lowest temperature on record, which occurred at Geneseo on February 3, 1996, is -24 degrees. In summer, the average temperature is 73 degrees and the average daily maximum temperature is 84 degrees. The highest recorded temperature, which occurred at Geneseo on August 17, 1988, is 103 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 (50 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.

Total annual precipitation is 37.41 inches. Of this total, 23.66 inches, or about 63 percent, usually falls in April through September. The growing season for most crops falls within this period. In 2 years out of 10, the rainfall in April through September is less than 11.30 inches. The heaviest 1-day rainfall on record is 5.20 inches. Thunderstorms occur on about 50 days each year.

The average seasonal snowfall is 27.8 inches. The greatest snow depth at any one time during the period of record is 29 inches. On the average, 45 days of the year have at least 1 inch of snow on the ground. The number of such days varies greatly from year to year.

Tornadoes and severe thunderstorms strike occasionally. They are of local extent and of short duration and cause only sparse damage in narrow belts. Hailstorms sometimes occur during the warmer periods. The hail falls in scattered small areas.

How This Survey Was Made

This survey was made to provide updated information about the soils and miscellaneous areas in Henry County, which is a subset of Major Land Resource Area 108B (fig. 1). Major land resource areas (MLRAs) are geographically associated land resource units that share a common land use, elevation, topography, climate, water, soils, and vegetation (USDA, 1981). Map unit design and the soil descriptions are based on the occurrence of each soil throughout the MLRA. In some cases a soil may be referred to that does not occur in the Henry County subset but that is representative of the MLRA.

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

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind 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 seasonal high water table within certain depths in most years, but they cannot predict that the water table will always be at a specific level in the soil on a specific date.

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

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

Formation and Classification of the Soils

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

Formation of the Soils

Soil-forming processes act on deposited or accumulated geologic material. The characteristics of the soil at any given point are determined by the parent material, living organisms on and in the soil, the climate, the topography, and the length of time that the forces of soil formation have acted on the soil material.

Climate and living organisms are active factors of soil formation. As they act on the parent material that has accumulated through the weathering of rocks and that may have been relocated by water, glaciers, or wind, they slowly change the material into a natural body that has genetically related horizons. The effects of climate and living organisms are conditioned by topography. The parent material affects the kind of soil profile that forms. Finally, time is needed for changing the parent material into a soil. Usually, a long time is needed for the formation of distinct horizons. The importance of each factor differs from place to place, and each modifies the effect of the other four. In some areas one factor dominates the formation of a soil. Human activities, such as clearing forests, cultivating, and applying fertilizer, also affect soil formation.

Parent Material

Parent material is the unconsolidated mass in which a soil forms. It determines the chemical and mineralogical composition of the soil. Wind, glaciers, or meltwater from glaciers deposited some of the parent material in Henry County (Leighton and Brophy, 1961). In some areas it was reworked and redeposited by subsequent actions of water and wind. Although all of the parent material in the county is of common glacial origin, its properties vary greatly, sometimes within small areas, depending on how the material was deposited. The soils in the county formed dominantly in loess; glacial till; outwash deposits; lacustrine deposits; alluvium; organic material; and residuum, or material weathered from bedrock.

Peoria loess is the major parent material in the county. The Mississippi River Valley was the main source of the loess. Wind picked up silt from the valley floor and redeposited it in the uplands. The loess is about 30 feet thick in nearly level areas on uplands. Osco soils are examples of soils that formed in loess. These soils typically are moderately fine textured and have a strongly expressed structure.

Glacial till is material laid down directly by glaciers with a minimum of water action. It consists of particles of different sizes that are mixed together. The small pebbles in glacial till have sharp corners, indicating that they have not been worn by washing water. All of the till in the county is of Illinoian age. In some areas it retains a Sangamon paleosol. Atlas and other modern soils formed in these areas. In many areas the paleosol has been removed by erosion. Hickory soils formed in these areas. In a few areas the till contains carbonates within a depth of 40 inches. Senachwine soils formed in these areas.

Outwash material is deposited by running water from melting glaciers. The size of the particles varies, depending on the speed of the stream that carried the material. When the water slowed down, the coarser particles were deposited. The finer particles, such as very fine sand, silt, and clay, were carried by the more slowly moving water. Outwash deposits generally consist of layers of particles that are similar in size, such as silt loam, sandy loam, and sand. La Hogue soils formed in loamy deposits of outwash material. In many areas a thin layer of loess covers the outwash deposits. Plano and Proctor soils are examples of soils that formed in this material. In some of these areas, the outwash is a thin deposit overlying glacial till.

Lacustrine material was deposited from still or ponded glacial meltwater. After the coarser fragments were deposited as outwash by moving water, the finer particles, such as very fine sand, silt, and clay, settled in the still water. As a result, the soils that formed in lacustrine deposits are typically fine textured. Niota soils formed in lacustrine material.

The alluvium in the county was recently deposited by floodwater from streams. It varies in texture, depending on the speed of the water from which it was deposited. Examples of alluvial soils are Radford and Sawmill soils.

Organic material is made up of deposits of plant remains. After the glaciers withdrew from the area, water was left standing in depressions on outwash plains and lake plains. As the grasses and sedges growing around the edges of these lakes died, their remains fell to the bottom. Later, water-tolerant trees grew in these areas. As these trees died, their residue became part of the organic accumulation. When the lakes eventually were filled with organic material, areas of muck and peat formed. Palms and other soils formed in organic material.

Shale bedrock is predominantly buried by loess, glacial till, outwash, and alluvium in Henry County. Along side slopes on dissected uplands, however, the material weathered from shale bedrock is the parent material of some soils, such as Marseilles soils.

Living Organisms

Plants are the principal living organisms that affect the formation of the soils in Henry County. Bacteria, fungi, and earthworms, however, also have affected soil formation. The chief contribution of plant and animal life is the addition of organic matter and nitrogen to the soil. The kind of organic material on and in the soil depends on the kind of plants that grew on the soil. The remains of these plants accumulate in the surface layer, decay, and eventually become organic matter. The roots of the plants provide channels for the downward movement of water through the soil and add organic matter as they decay. Bacteria in the soil help to break down the organic matter and thus help to provide plant nutrients.

The native vegetation in the county was trees and prairie grasses. The sloping soils formed mainly under forests of oak, hickory, and similar trees. The nearly level soils formed under prairie grasses. They have a darker and thicker surface layer than that of the soils that formed under forest vegetation. Also, they have a higher content of organic matter. Fayette soils are an example of soils that formed under forest vegetation. Muscatune soils formed under prairie vegetation.

Climate

Climate is an important factor in the formation of soils. It influences the kind of plant and animal life on and in the soil. Precipitation affects the weathering of minerals and the transporting of soil material. Temperature determines the rate of chemical reaction that occurs in the soil. The general climate has had an important overall influence on the characteristics of the soils, but it does not cause major differences among soils in a relatively small area, such as a county.

The climate in Henry County is temperate and humid. It is probably similar to the climate under which the soils formed.

Topography

Topography, or relief, has a marked influence on the soils through its effect on natural drainage, erosion, plant cover, and soil temperature. In Henry County, the slopes dominantly range from 0 to 60 percent. Natural soil drainage ranges from excessively drained on sandy ridgetops to very poorly drained in depressions.

Topography influences the formation of soils by affecting runoff and drainage. Drainage, in turn, through its effect on aeration of the soils, determines the color of the soil. Runoff is most rapid on the steeper slopes, but in low areas, water is temporarily ponded. Water and air move freely through well drained soils but slowly through poorly drained soils. In well aerated soils, the iron compounds that give most soils their color are brightly colored. In poorly aerated soils, the colors are gleyed and mottled. Fayette soils are examples of well drained, well aerated soils. Sable soils are examples of poorly drained, poorly aerated soils.

Time

The length of time needed for the formation of a soil depends on the other factors of soil formation. Differences in the length of time that the parent materials have been in place are commonly reflected in the degree of profile development. Soils form more rapidly and are more acid if the parent material is low in content of calcium (lime). The more rapidly permeable soils form more readily than slowly permeable soils because calcium and other soluble minerals are leached more quickly. Soils form more quickly under forest vegetation than under prairie vegetation because grasses are more efficient in recycling calcium and other bases from the subsoil to the surface layer. Soils generally form more quickly in a humid climate than in a dry climate.

The soils in Henry County range from young to mature. Most of the soils on uplands are moderately developed. The soils in the northern part of the county and on terraces are weakly developed.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 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 4 shows the classification of the soils in the county. The categories are defined in the following paragraphs.

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

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

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

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

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineral content, cation-exchange capacity, temperature regime, thickness of the root zone, consistence, moisture equivalent, slope, and permanent cracks. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-silty, mixed, superactive, mesic Typic Endoaquolls.

SERIES. The series consists of soils that have similar horizons in their profile. The horizons are similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. The texture of the surface layer or of the substratum can differ within a series. The Drummer series is an example of a soil series in this survey area.

Soil Series and Detailed Soil Map Units

In this section, arranged in alphabetical order, each soil series recognized in the survey area is described. Each series description is followed by detailed descriptions of the associated soil map units.

Characteristics of the soil and the material in which it formed are identified for each soil 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). Many of the technical terms used in the descriptions are defined in "Keys to Soil Taxonomy" (Soil Survey Staff, 1998). Unless otherwise stated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

The map units on the soil maps in this survey represent the soils or miscellaneous areas in the survey area. These soils or miscellaneous areas are listed as individual components in the map unit description. 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 given under the headings "Use and Management of the Soils" and "Soil Properties."

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. 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. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor 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 landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives some of the soil properties and qualities that may affect planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, 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, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Hickory silt loam, 10 to 18 percent slopes, eroded, is a phase of the Hickory 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. Sable silty clay loam, 0 to 2 percent slopes, is an example.

Some map units are made up of two or more dominant components. These map units are complexes. 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. Timula-Hickory silt loams, 35 to 60 percent slopes, is an example.

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

Table 5 gives the acreage and proportionate extent of each map unit. Other tables (see Contents) give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

Adrian Series

Taxonomic classification: Sandy or sandy-skeletal, mixed, euic, mesic Terric Haplosaprists

Typical Pedon

Adrian muck, 0 to 2 percent slopes; 2,080 feet west and 1,200 feet south of the northeast corner of sec. 35, T. 19 N., R. 4 E.; in Whiteside County, Illinois; USGS Spring Hill topographic quadrangle; lat. 41 degrees 35 minutes 42 seconds N. and long. 90 degrees 00 minutes 18 seconds W., NAD 27:

Oap—0 to 10 inches; sapric material, black (N 2/0) broken face and rubbed; about 5 percent fiber, 2 percent rubbed; weak fine subangular blocky structure parting to weak fine granular; friable; strongly acid; abrupt smooth boundary.

Oa—10 to 22 inches; sapric material, black (N 2/0) broken face, black (5YR 2.5/1) rubbed; about 15 percent fiber, 2 percent rubbed; massive; friable; strongly acid; abrupt smooth boundary.

C—22 to 60 inches; pale brown (10YR 6/3) and brown (10YR 5/3) sand; single grain; loose; thin strata of dark grayish brown (10YR 4/2) sandy loam between depths of 22 and 28 inches; few fine faint light brownish gray (10YR 6/2) iron depletions; few medium faint yellowish brown (10YR 5/4) and few medium distinct strong brown (7.5YR 5/6) iron masses in the matrix; few fine pebbles; neutral.

Range in Characteristics

Thickness of the organic deposits: 16 to 51 inches

Surface tier:
Hue—5YR to 10YR or N
Value—2
Chroma—0 to 3

C horizon:
Hue—5YR to 5Y or N
Value—2 to 6
Chroma—0 to 4
Texture—coarse sand to loamy sand or the gravelly or very gravelly analogs of these textures

777A—Adrian muck, 0 to 2 percent slopes

Setting

Landform: Outwash plains

Map Unit Composition

Adrian and similar soils: 99 percent
Dissimilar soils: 1 percent

Minor Components

Similar soils:
- Soils that have more than 50 inches of organic material over mineral material
- Soils that are underlain by loamy material

Dissimilar soils:
- The somewhat poorly drained Watseka soils on summits
- The poorly drained Gilford and Selma soils on summits

Properties and Qualities of the Adrian Soil

Parent material: Herbaceous organic material over outwash
Drainage class: Very poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow

Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 55 to 75 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: At the surface (December through June)
Ponding depth: As much as 0.5 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 4w
Prime farmland status: Not prime farmland
Hydric soil status: Hydric

7777A—Adrian muck, 0 to 2 percent slopes, rarely flooded

Setting

Landform: Flood plains

Map Unit Composition

Adrian and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have more than 50 inches of organic material over mineral deposits
- Soils that are calcareous
- Soils that are underlain by loamy or marly deposits

Dissimilar soils:
- The poorly drained Cohoctah and Normandy soils on flood plains

Properties and Qualities of the Adrian Soil

Parent material: Herbaceous organic material over alluvium
Drainage class: Very poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 13.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 55 to 75 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: At the surface (November through June)
Ponding depth: As much as 0.5 foot during wet periods
Frequency of flooding: Rare (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 4w
Prime farmland status: Not prime farmland
Hydric soil status: Hydric

Aholt Series

Taxonomic classification: Very fine, smectitic, calcareous, mesic Vertic Endoaquolls

Typical Pedon

Aholt silty clay, 0 to 2 percent slopes; 2,400 feet north and 30 feet west of the southeast corner of sec. 36, T. 18 N., R. 4 E.; in Henry County, Illinois; USGS Hooppole topographic quadrangle; lat. 41 degrees 30 minutes 05 seconds N. and long. 89 degrees 58 minutes 21 seconds W., NAD 27:

Apk—0 to 8 inches; black (10YR 2/1) silty clay, very dark gray (10YR 3/1) dry; moderate fine and medium angular and subangular blocky structure parting to moderate medium granular; very firm; violently effervescent; moderately alkaline; abrupt smooth boundary.

Ak—8 to 18 inches; black (10YR 2/1) clay, very dark gray (10YR 3/1) dry; strong medium subangular blocky structure; very firm; few fine prominent yellowish brown (10YR 5/8) redoximorphic features; violently effervescent; moderately alkaline; gradual smooth boundary.

Bkg1—18 to 23 inches; very dark gray (2.5YR 3/1) clay, dark gray (10YR 4/1) dry; strong medium subangular blocky structure; very firm; common medium prominent brownish yellow redoximorphic features; effervescent; moderately alkaline; gradual wavy boundary.

Bkg2—23 to 35 inches; dark grayish brown (2.5Y 4/2) clay; moderate medium prismatic structure parting to strong medium subangular blocky; very firm; many coarse prominent brownish yellow (10YR 6/8) redoximorphic features; effervescent; moderately alkaline; clear wavy boundary.

Bg—35 to 51 inches; olive gray (5Y 5/2) clay; strong medium subangular blocky structure; very firm; common coarse prominent brownish yellow (10YR 6/8) redoximorphic features; effervescent; moderately alkaline; clear wavy boundary.

Ckg—51 to 60 inches; olive gray (5Y 5/2) silty clay; massive; very firm; common medium prominent brownish yellow (10YR 6/8) redoximorphic features; violently effervescent; moderately alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches

Ap or A horizon:
Hue—10YR or 2.5Y
Value—2 or 3
Chroma—1 or 2
Texture—clay or silty clay

Bg horizon:
Hue—2.5Y, 5Y, or N
Value—2 to 6
Chroma—0 to 2
Texture—clay or silty clay

Cg horizon:
Hue—2.5Y, 5Y, or N
Value—2 to 6
Chroma—0 to 2
Texture—silty clay or silty clay loam

670A—Aholt silty clay, 0 to 2 percent slopes

Setting

Landform: Lake plains

Map Unit Composition

Aholt and similar soils: 100 percent

Minor Components

Similar soils:
- Soils that contain less clay than the Aholt soil
- Soils that are not calcareous in the upper part
- Soils that have a surface layer more than 24 inches thick

Properties and Qualities of the Aholt Soil

Parent material: Clayey lacustrine deposits
Drainage class: Very poorly drained
Slowest permeability within a depth of 40 inches: Impermeable
Permeability below a depth of 60 inches: Impermeable or very slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 6 percent
Shrink-swell potential: Very high
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Ambraw Series

Taxonomic classification: Fine-loamy, mixed, superactive, mesic Fluvaquentic Endoaquolls

Typical Pedon

Ambraw clay loam, 0 to 2 percent slopes, rarely flooded; 2,400 feet north and 160 feet east of the southwest corner of sec. 11, T. 19 N., R. 3 E.; in Whiteside County, Illinois; USGS Erie Northwest topographic quadrangle; lat. 41 degrees 38 minutes 57 seconds N. and long. 90 degrees 07 minutes 54 seconds W., NAD 27:

Ap—0 to 10 inches; black (10YR 2/1) clay loam, very dark grayish brown (10YR 3/2) dry; weak fine subangular blocky structure parting to weak fine granular; friable; slightly acid; abrupt smooth boundary.

A—10 to 20 inches; very dark gray (10YR 3/1) clay loam, dark grayish brown (10YR 4/2) dry; weak fine subangular blocky structure parting to weak fine granular; friable; many distinct black (10YR 2/1) organic coats on faces of peds; few fine prominent yellowish brown (10YR 5/6) iron oxide masses in the matrix; neutral; clear smooth boundary.

Bg1—20 to 27 inches; dark gray (10YR 4/1) clay loam; moderate medium and fine subangular blocky structure; friable; many distinct very dark gray (10YR 3/1) organic coats on faces of peds; few fine concretions of iron oxide throughout the matrix; common fine prominent strong brown (7.5YR 4/6) iron oxide masses in the matrix; neutral; clear smooth boundary.

Bg2—27 to 32 inches; dark gray (10YR 4/1) clay loam; weak medium prismatic structure; friable; few faint concretions of iron oxide throughout the matrix; many medium prominent yellowish brown (10YR 5/6) and few fine prominent strong brown (7.5YR 4/6) iron oxide masses in the matrix; slightly acid; clear smooth boundary.

Bg3—32 to 36 inches; gray (5Y 5/1) clay loam; weak medium subangular blocky structure; friable; very dark gray (10YR 3/1) krotovina 1 inch wide at a depth of 34 to 35 inches; few fine concretions of iron oxide throughout the matrix; many medium prominent yellowish brown (10YR 5/6) and few fine prominent strong brown (7.5YR 4/6) iron oxide masses in the matrix; neutral; abrupt smooth boundary.

Bg4—36 to 45 inches; gray (5Y 5/1) clay loam with thin strata of gray (10YR 5/1) sandy clay loam; weak medium subangular blocky structure; friable; few fine soft masses of iron oxide throughout the matrix; few fine prominent brown (7.5YR 5/4) and common fine prominent yellowish brown (10YR 5/6) iron oxide masses in the matrix; slightly acid; gradual smooth boundary.

Cg—45 to 60 inches; stratified grayish brown (2.5Y 5/2) clay loam, very dark grayish brown (2.5Y 3/2) sandy clay loam, and brown (10YR 5/3) loamy sand; massive; friable; few fine prominent yellowish brown (10YR 5/6) iron oxide masses in the matrix; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to free carbonates: More than 50 inches
Thickness of the solum: 40 to 60 inches

Ap or A horizon:
Hue—10YR, 2.5Y, or N
Value—2 or 3
Chroma—0 to 2
Texture—clay loam, loam, sandy loam, sandy clay loam, or silty clay loam

Bg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 2
Texture—loam, clay loam, sandy clay loam, sandy loam, or silt loam

Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 4
Texture—stratified sand, loamy sand, sandy loam, loam, silt loam, and clay loam

3302A—Ambraw silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform: Flood plains

Map Unit Composition

Ambraw and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that have a surface layer more than 24 inches thick
- Soils that have more silt and less sand than the Ambraw soil

Dissimilar soils:
- The moderately well drained Medway soils on flood plains

Properties and Qualities of the Ambraw Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow or moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Frequency of flooding: Frequent (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible

Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained and either protected from flooding or not frequently flooded during the growing season
Hydric soil status: Hydric

7302A—Ambraw clay loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform: Flood plains

Map Unit Composition

Ambraw and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that contain more silt and less sand than the Ambraw soil
- Soils that are calcareous in the lower part

Dissimilar soils:
- The somewhat poorly drained Hoopeston and La Hogue soils on adjacent low terrace summits

Properties and Qualities of the Ambraw Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow or moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Frequency of flooding: Rare (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

8302A—Ambraw loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains

Map Unit Composition

Ambraw and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have more silt and less clay than the Ambraw soil
- Soils that have more sand and less silt and clay than the Ambraw soil

Dissimilar soils:
- The moderately well drained Medway soils on flood plains

Properties and Qualities of the Ambraw Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow or moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Frequency of flooding: Occasional (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w

Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Assumption Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Oxyaquic Argiudolls
Taxadjunct features: The Assumption soils in map units 259C2 and 259D2 have a thinner dark surface layer than is defined as the range for the series. These soils are classified as fine-silty, mixed, superactive, mesic Mollic Hapludalfs.

Typical Pedon (Official Series Description)

Assumption silt loam, 2 to 5 percent slopes, at an elevation of 720 feet; 100 feet north and 300 feet east of the southwest corner of sec. 29, T. 15 N., R. 2 E.; in Henry County, Illinois; USGS Andover topographic quadrangle; lat. 41 degrees 15 minutes 00 seconds N. and long. 90 degrees 17 minutes 57 seconds W., NAD 27:

Ap—0 to 6 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; weak medium granular structure; friable; many fine roots throughout; neutral; abrupt smooth boundary.
A—6 to 13 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate medium granular structure; friable; many fine roots throughout; slightly acid; clear smooth boundary.
AB—13 to 16 inches; very dark grayish brown (10YR 3/2) silt loam mixed with some brown (10YR 4/3) in the lower 2 inches; grayish brown (10YR 5/2) and brown (10YR 5/3) dry; weak medium subangular blocky structure; friable; many fine roots throughout; neutral; clear wavy boundary.
Bt1—16 to 26 inches; brown (10YR 4/3) silty clay loam; weak medium prismatic structure parting to moderate fine subangular blocky; firm; common fine roots between peds; many moderately thick brown (10YR 5/3) clay films on faces of peds; slightly acid; clear wavy boundary.
Bt2—26 to 35 inches; brown (10YR 5/3) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; firm; common fine roots between peds; many distinct brown (10YR 4/3) clay films on faces of peds; many medium distinct brownish yellow (10YR 6/6) masses of iron accumulation and common distinct grayish brown (2.5Y 5/2) iron depletions in the matrix; slightly acid; abrupt wavy boundary.
2Bt3—35 to 51 inches; yellowish brown (10YR 5/4) clay loam; weak medium subangular blocky structure; firm; common fine roots between peds; common distinct moderately thick dark yellowish brown (10YR 4/3) clay films on faces of peds; many coarse faint yellowish brown (10YR 5/8) masses of iron accumulation; common medium prominent light olive gray (5Y 6/2) iron depletions; slightly acid; clear wavy boundary.
2Bt4—51 to 60 inches; brown (10YR 5/3) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; firm; common fine roots between peds; many moderately thick light brown (10YR 4/3) clay films on faces of peds; many medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; slightly acid; clear wavy boundary.
2C—60 to 80 inches; brown (10YR 5/3) clay loam; massive; firm; common coarse prominent grayish brown (2.5Y 5/2) iron depletions and common coarse distinct brown (7.5YR 4/4) masses of iron accumulations in the matrix; slightly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the loess: 20 to 40 inches
Thickness of the solum: 48 to more than 70 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam or silty clay loam
Reaction—moderately acid to neutral

Bt horizon:
Hue—10YR or 2.5Y
Value—4 or 5
Chroma—2 to 6
Texture—silty clay loam or silt loam
Reaction—strongly acid to neutral

2Btg or 2Bt horizon:
Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—3 to 6
Chroma—1 to 6
Texture—clay loam, silty clay loam, loam, clay, or silty clay
Reaction—strongly acid to neutral

2C or 2Cg horizon:
Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—3 to 6
Chroma—1 to 6
Texture—clay loam, silty clay loam, loam, clay, or silty clay
Reaction—slightly acid to moderately alkaline

259B—Assumption silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Backslopes and shoulders

Map Unit Composition

Assumption and similar soils: 100 percent

Minor Components

Similar soils:
- Soils that have a lighter colored surface layer than that of the Assumption soil
- Soils that have less clay in the subsoil than the Assumption soil
- Soils that have a lens of sandy material above the lower part of the subsoil
- Soils that are calcareous within a depth of 60 inches

Properties and Qualities of the Assumption Soil

Parent material: Loess over a paleosol that formed in till
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Slow or moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: High
Depth and months of highest perched seasonal high water table: 2 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

259C2—Assumption silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes and shoulders

Map Unit Composition

Assumption and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a lighter colored surface layer than that of the Assumption soil
- Soils that have less clay in the subsoil than the Assumption soil
- Soils that have a lens of sandy material above the lower part of the subsoil
- Soils that are calcareous within a depth of 60 inches

Dissimilar soils:
- The somewhat poorly drained Radford soils in drainageways

Properties and Qualities of the Assumption Soil

Parent material: Loess over a paleosol that formed in till
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Slow or moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest perched seasonal high water table: 2 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

259D2—Assumption silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes and shoulders

Map Unit Composition

Assumption and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that have a lighter colored surface layer than that of the Assumption soil
- Soils that have less clay in the subsoil than the Assumption soil
- Soils that have a lens of sandy material above the lower part of the subsoil
- Soils that are calcareous within a depth of 60 inches

Dissimilar soils:
- The somewhat poorly drained Radford soils in drainageways

Properties and Qualities of the Assumption Soil

Parent material: Loess over a paleosol that formed in till
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Slow or moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: High
Depth and months of highest perched seasonal high water table: 2 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Atlas Series

Taxonomic classification: Fine, smectitic, mesic Aeric Chromic Vertic Epiaqualfs
Map units in which this series occurs: 918D3, 946D2, 946D3, 957D3

Typical Pedon

Atlas silt loam, 5 to 10 percent slopes, eroded, at an elevation of 665 feet; 1,200 feet west and 50 feet south of the northeast corner of sec. 7, T. 1 N., R. 6 W.; in Warren County, Illinois; USGS Coatsburg topographic quadrangle; lat. 40 degrees 05 minutes 40 seconds N. and long. 91 degrees 07 minutes 52 seconds W., NAD 27:

Ap—0 to 7 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak fine granular structure; friable; common very fine and fine roots; common medium prominent strong brown (7.5YR 5/8) and few fine distinct yellowish brown (10YR 5/6) masses of iron throughout; few fine prominent black (2.5Y 2.5/1) masses of iron and manganese throughout; slightly acid; clear smooth boundary.

BE—7 to 13 inches; brown (10YR 5/3) silty clay loam, light brownish gray (10YR 6/2) dry; weak medium subangular blocky structure; friable; common fine roots; few fine distinct light brownish gray (10YR 6/2) clay depletions throughout; few fine distinct yellowish brown (10YR 5/6) masses of iron throughout; slightly acid; clear wavy boundary.

2Btg1—13 to 26 inches; dark gray (10YR 4/1) silty clay loam; moderate thick platy structure parting to weak fine subangular blocky; firm; common fine and few medium roots; common distinct very dark gray (10YR 3/1) organo-clay films on faces of peds and in pores; few fine prominent yellowish brown (10YR 5/6) masses of iron and few fine distinct white (10YR 8/1) masses of barite throughout; moderately acid; clear wavy boundary.

2Btg2—26 to 37 inches; 87 percent dark gray (10YR 4/1) and 10 percent gray (10YR 5/1) silty clay; weak medium prismatic structure; firm; common fine and medium roots; few distinct very dark gray (10YR 3/1) organo-clay films on faces of peds and in pores; common fine prominent yellowish brown (10YR 5/6) masses of iron and few fine distinct white (10YR 8/1) masses of barite throughout; 1 percent rounded gravel and 1 percent subangular limestone-cherty gravel; neutral; clear wavy boundary.

2Btg3—37 to 47 inches; gray (2.5Y 5/1) silty clay; weak coarse prismatic structure; firm; common fine roots; few distinct very dark gray (10YR 3/1) organo-clay films on faces of peds and in pores; few fine prominent yellowish brown (10YR 5/6) masses of iron, few fine faint gray (10YR 6/1) iron depletions, and few fine distinct white (10YR 8/1) masses of barite throughout; 1 percent angular gravel; neutral; clear wavy boundary.

2Btg4—47 to 61 inches; gray (2.5Y 5/1) clay loam; weak coarse prismatic structure; firm; common very fine roots; few distinct very dark gray (10YR 3/1) organo-clay films on faces of peds and in pores; few fine distinct black (2.5Y 2.5/1) masses of iron and manganese and few fine distinct white (10YR 8/1) barite crystals throughout; 1 percent limestone-cherty gravel and 1 percent rounded igneous-granite gravel; neutral; clear wavy boundary.

2BCg—61 to 80 inches; light brownish gray (2.5Y 6/2) clay loam; weak coarse prismatic structure; firm; few fine distinct yellowish brown (10YR 5/6) and common medium prominent brownish yellow (10YR 6/8) masses of iron throughout; 2 percent limestone-cherty gravel; neutral.

Range in Characteristics

Depth to the base of the argillic horizon: More than 42 inches

Ap or A horizon:
Hue—10YR
Value—2 to 5
Chroma—1 to 4
Texture—silt loam, loam, silty clay loam, or clay loam

E or BE horizon:
Hue—10YR
Value—4 or 5
Chroma—1 to 4
Texture—silt loam or silty clay loam

Bt, Btg, or 2Btg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 2
Texture—clay loam, clay, silty clay loam, or silty clay
Content of rock fragments—0 to 5 percent

2Cg horizon (if it occurs):
Hue—10YR, 7.5YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 6
Texture—silty clay loam, clay loam, or loam
Content of rock fragments—2 to 15 percent

Beaucoup Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Fluvaquentic Endoaquolls

Typical Pedon

Beaucoup silty clay loam, 0 to 2 percent slopes, rarely flooded; 1,540 feet north and 1,860 feet east of the southwest corner of sec. 26, T. 20 N., R. 4 E.; in Whiteside County, Illinois; USGS Erie topographic quadrangle; lat. 41 degrees 41 minutes 21 seconds N. and long. 90 degrees 00 minutes 34 seconds W., NAD 27:

Ap—0 to 10 inches; black (N 2/0) silty clay loam, very dark gray (10YR 3/1) dry; weak medium and fine subangular blocky structure parting to moderate fine granular; friable; neutral; abrupt smooth boundary.

AB—10 to 16 inches; black (10YR 2/1) silty clay loam, dark gray (10YR 4/1) dry; moderate medium subangular blocky structure parting to moderate fine granular; friable; few fine distinct dark yellowish brown (10YR 4/4) iron masses in the matrix; neutral; clear smooth boundary.

Bg1—16 to 24 inches; dark gray (10YR 4/1) silty clay loam; moderate medium and fine subangular blocky structure; friable; few fine distinct dark yellowish brown (10YR 4/4) iron masses in the matrix; common faint very dark gray (10YR 3/1) organic coats on faces of peds; neutral; clear smooth boundary.

Bg2—24 to 33 inches; dark gray (10YR 4/1) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; friable; few fine distinct brown (10YR 5/3) iron masses in the matrix; few fine iron-manganese concretions; neutral; clear smooth boundary.

Bg3—33 to 43 inches; grayish brown (2.5Y 5/2) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; friable; few fine prominent dark yellowish brown (10YR 4/4) iron masses in the matrix; neutral; clear smooth boundary.

BCg—43 to 50 inches; light brownish gray (2.5Y 6/2) silty clay loam; weak medium prismatic structure; friable; very dark gray (10YR 3/1) krotovinas 2 inches wide at a depth of 46 inches; few fine prominent dark yellowish brown (10YR 4/6) iron masses in the matrix; slightly alkaline; gradual smooth boundary.

Cg—50 to 60 inches; grayish brown (2.5Y 5/2) and light brownish gray (2.5Y 6/2) silt loam; massive; friable; common medium and fine prominent strong brown (7.5YR 4/6) iron masses in the matrix; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the solum: 35 to 65 inches

Ap or A horizon:
Hue—N or 10YR
Value—2 or 3
Chroma—0 to 2
Texture—silty clay loam or silt loam

Bg or Btg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—3 to 6
Chroma—0 to 2
Texture—silty clay loam

BCg and/or Cg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 2
Texture—silty clay loam or silt loam; thin strata of loam, sandy loam, fine sandy loam, or very fine sandy loam in some pedons

3070A—Beaucoup silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform: Flood plains

Map Unit Composition

Beaucoup and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are somewhat poorly drained
- Soils that are stratified within a depth of 10 inches

Dissimilar soils:
- The somewhat poorly drained Elburn soils on adjacent low terrace summits
- The well drained Plano soils on adjacent low terrace summits and shoulders

Properties and Qualities of the Beaucoup Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 5 to 6 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Frequency of flooding: Frequent (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained and either protected from flooding or not frequently flooded during the growing season
Hydric soil status: Hydric

Biggsville Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludolls

Typical Pedon (Official Series Description)

Biggsville silt loam, 0 to 2 percent slopes, at an elevation of 630 feet; 1,520 feet west and 200 feet south of the northeast corner of sec. 30, T. 19 N., R. 3 E.; in Rock Island County, Illinois; USGS Hillsdale topographic quadrangle; lat. 41 degrees 36 minutes 40 seconds N. and long. 90 degrees 12 minutes 00 seconds W., NAD 27:

Ap—0 to 8 inches; very dark gray (10YR 3/1) silt loam, grayish brown (10YR 5/2) dry; moderate very fine and fine granular structure; friable; common fine roots; neutral; abrupt smooth boundary.

AB—8 to 16 inches; very dark grayish brown (10YR 3/2) and brown (10YR 4/3) silt loam, grayish brown (10YR 5/2) dry; moderate medium subangular blocky structure parting to moderate fine granular; friable; few fine roots; neutral; gradual smooth boundary.

Bw1—16 to 32 inches; brown (10YR 4/3) and dark yellowish brown (10YR 4/4) silt loam; moderate medium prismatic structure parting to moderate medium subangular blocky; friable; few fine roots; few faint very dark grayish brown (10YR 3/2) organic coats on faces of peds; slightly acid; abrupt smooth boundary.

Bw2—32 to 47 inches; brown (10YR 4/3) silt loam; moderate medium prismatic structure; friable; common medium distinct brown (7.5YR 4/4) and yellowish brown (10YR 5/6) masses of iron within peds; common medium distinct grayish brown (10YR 5/2) iron depletions within peds; few fine black (10YR 2/1) iron and manganese oxide stains; slightly acid; gradual smooth boundary.

Cg—47 to 80 inches; grayish brown (10YR 5/2), brown (7.5YR 4/4), and yellowish brown (10YR 5/6) silt loam; massive; friable; few fine black (10YR 2/1) iron and manganese oxide stains; slightly acid.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches
Depth to the base of the cambic horizon: More than 42 inches

Ap or A horizon:
Value—2 or 3
Chroma—1 to 3
Reaction—moderately acid to moderately alkaline

Bw or BC horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 to 6
Reaction—moderately acid to neutral

C or Cg horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—2 to 6
Reaction—slightly acid to moderately alkaline

671A—Biggsville silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Biggsville and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a surface layer less than 10 inches thick
- Soils that are somewhat poorly drained
- Soils that contain more than 27 percent clay

Dissimilar soils:
- The poorly drained Sable soils on toeslopes

Properties and Qualities of the Biggsville Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 5 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

671B—Biggsville silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Biggsville and similar soils: 96 percent
Dissimilar soils: 4 percent

Minor Components

Similar soils:
- Soils that have a surface layer less than 10 inches thick
- Soils that are somewhat poorly drained
- Soils that contain more than 27 percent clay

Dissimilar soils:
- The poorly drained Sable soils on toeslopes

Properties and Qualities of the Biggsville Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 5 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Bold Series

Taxonomic classification: Coarse-silty, mixed, superactive, calcareous, mesic Typic Udorthents
Map unit in which this series occurs: 962D3

Typical Pedon (Official Series Description)

Bold silt loam, in an area of Sylvan-Bold complex, 10 to 18 percent slopes, severely eroded; 600 feet north and 900 feet east of the southwest corner of sec. 7, T. 16 N., R. 3 E.; in Henry County, Illinois; USGS Geneseo topographic quadrangle; lat. 41 degrees 23 minutes 04 seconds N. and long. 90 degrees 11 minutes 57 seconds W., NAD 27:

Ap—0 to 8 inches; mixed brown (10YR 4/3), dark grayish brown (10YR 4/2), and yellowish brown (10YR 5/4) silt loam, pale brown (10YR 6/3) and light yellowish brown (10YR 6/4) dry; weak very fine and fine granular structure; friable; slightly effervescent; moderately alkaline; abrupt smooth boundary.
C1—8 to 16 inches; yellowish brown (10YR 5/6) silt loam; massive; friable; strongly effervescent; moderately alkaline; abrupt smooth boundary.
C2—16 to 37 inches; light brownish gray (10YR 6/2) and yellowish brown (10YR 5/6) silt loam; massive; friable; strongly effervescent; moderately alkaline; clear smooth boundary.
C3—37 to 60 inches; yellowish brown (10YR 5/6) and light brownish gray (10YR 6/2) silt loam; massive; friable; strongly effervescent; moderately alkaline; clear wavy boundary.
C4—60 to 80 inches; light brownish gray (10YR 6/2) and yellowish brown (10YR 5/6) silt loam; massive; few coarse prominent strong brown (7.5YR 5/8) iron concentrations; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the loess: 6 to more than 30 feet
Thickness of the solum: 3 to 12 inches

Ap horizon:
Hue—10YR
Value—4 to 6
Chroma—2 to 6

C horizon:
Hue—10YR
Value—4 to 7
Chroma—2 to 8

Booker Series

Taxonomic classification: Very fine, smectitic, mesic Cumulic Vertic Endoaquolls

Typical Pedon

Booker silty clay, 0 to 2 percent slopes; 100 feet south and 1,270 feet east of the northwest corner of sec. 3, T. 17 N., R. 4 E.; in Henry County, Illinois; USGS Atkinson topographic quadrangle; lat. 41 degrees 29 minutes 46 seconds N. and long. 90 degrees 01 minute 30 seconds W., NAD 27:

Ap—0 to 8 inches; very dark gray (10YR 3/1) silty clay, dark gray (10YR 4/1) dry; weak medium subangular blocky structure; very firm; common roots; neutral; abrupt smooth boundary.

A1—8 to 12 inches; very dark gray (10YR 3/1) silty clay, dark gray (10YR 4/1) dry; moderate medium subangular blocky structure; very firm; common roots; neutral; gradual wavy boundary.

A2—12 to 18 inches; very dark gray (10YR 3/1) clay, dark gray (10YR 4/1) dry; moderate fine subangular blocky structure; very firm; common dark gray (10YR 4/1) pressure faces on peds; few fine prominent yellowish brown (10YR 5/6) iron concentrations; neutral; clear wavy boundary.

Bg1—18 to 22 inches; olive gray (5Y 4/2) clay; moderate fine and medium subangular blocky structure; very firm; many dark gray (10YR 4/1) pressure faces on peds; common medium distinct brown (10YR 5/3) iron depletions; neutral; clear wavy boundary.

Bg2—22 to 33 inches; olive gray (5Y 5/2) clay; moderate medium subangular blocky structure; very firm; many dark gray (10YR 4/1) pressure faces on peds; many medium faint olive (5Y 5/3) iron depletions; neutral; clear wavy boundary.

Bg3—33 to 44 inches; olive gray (5Y 5/2) clay; moderate fine subangular blocky structure; very firm; many dark gray (10YR 4/1) pressure faces on peds; few lime concretions in the lower part; neutral; gradual wavy boundary.

Cg—44 to 60 inches; mottled olive gray (5Y 5/2), reddish brown (5YR 5/3), and yellowish brown (10YR 5/6) silty clay; massive; firm; few dark gray (10YR 4/1) pressure faces on weak cleavage planes; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches

Ap horizon:
Hue—10YR to 5Y or N
Value—2 or 3
Chroma—0 to 2
Texture—silty clay or clay

Bg horizon:
Hue—10YR to 5Y or N
Value—2 to 5
Chroma—0 to 2

Cg horizon:
Hue—10YR to 5Y or N
Value—4 to 6
Chroma—0 to 2
Texture—silty clay or clay

457A—Booker silty clay, 0 to 2 percent slopes

Setting

Landform: Lake plains
Position on the landform: Summits

Map Unit Composition

Booker and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that are calcareous
- Soils that contain less clay than the Booker soil

Dissimilar soils:
- The poorly drained Harpster soils on toeslopes

Properties and Qualities of the Booker Soil

Parent material: Lacustrine deposits
Drainage class: Very poorly drained (fig. 3)
Slowest permeability within a depth of 40 inches: Impermeable
Permeability below a depth of 60 inches: Impermeable or very slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 5 percent
Shrink-swell potential: Very high
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Brenton Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aquic Argiudolls

Figure 3.—An area of Booker silty clay, 0 to 2 percent slopes. Artificial drainage is needed to remove excess water in many areas of this soil.

Typical Pedon (Official Series Description)

Brenton silt loam, 0 to 2 percent slopes, at an elevation of 715 feet; 1,722 feet south and 114 feet east of the northwest corner of sec. 10, T. 22 N., R. 8 E.; in Champaign County, Illinois; USGS Gibson City East topographic quadrangle; lat. 40 degrees 22 minutes 45 seconds N. and long. 88 degrees 17 minutes 24 seconds W., NAD 27:

Ap—0 to 10 inches; black (10YR 2/1) silt loam, dark gray (10YR 4/1) dry; weak fine granular structure; friable; common very fine roots; neutral; abrupt smooth boundary.

AB—10 to 16 inches; very dark gray (10YR 3/1) silt loam, gray (10YR 5/1) dry; weak fine subangular blocky structure parting to moderate fine granular; friable; common very fine roots; neutral; clear smooth boundary.

Bt1—16 to 26 inches; brown (10YR 4/3) silty clay loam; moderate fine subangular blocky structure; friable; common very fine roots; many distinct very dark gray (10YR 3/1) organo-clay films on faces of peds; common distinct dark grayish brown (10YR 4/2) clay films in root channels and pores; common fine prominent yellowish brown (10YR 5/8) masses of iron in the matrix; few fine faint grayish brown (10YR 5/2) iron depletions in the matrix; neutral; clear smooth boundary.

Bt2—26 to 35 inches; brown (10YR 4/3) and dark yellowish brown (10YR 4/4) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; friable; few very fine roots; common distinct very dark gray (10YR 3/1) organo-clay films on faces of peds; many distinct dark grayish brown (10YR 4/2) clay films in pores; few fine black (10YR 2/1) very weakly cemented iron and manganese nodules throughout; common fine distinct brownish yellow (10YR 6/6) and yellowish brown (10YR 5/8) masses of iron in the matrix; common fine distinct light gray (10YR 7/2) iron depletions in the matrix; slightly acid; clear smooth boundary.

2Bt3—35 to 53 inches; dark yellowish brown (10YR 4/4) and brown (10YR 5/3) clay loam; moderate medium prismatic structure; friable; few very fine roots; few distinct very dark grayish brown (10YR 3/2) organo-clay films on faces of peds; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; few fine black (10YR 2/1) very weakly cemented iron and manganese nodules throughout; common fine distinct very pale brown

(10YR 7/3) iron depletions in the matrix; slightly acid; abrupt smooth boundary.
2C—53 to 72 inches; brownish yellow (10YR 6/8) and light gray (10YR 7/2), stratified silt loam and sandy loam; thin layers of loamy sand; massive; friable; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 16 inches
Depth to the base of the argillic horizon: 38 to 60 inches
Depth to carbonates: More than 40 inches

A, Ap, or AB horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Reaction—moderately acid to slightly alkaline

Bt horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—2 to 4
Texture—silty clay loam or silt loam
Reaction—moderately acid to neutral

2Bt and/or 2BC horizon:
Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—4 to 7
Chroma—1 to 8
Texture—stratified clay loam or loam; sandy loam, silty clay loam, silt loam, or sandy clay loam subhorizons
Reaction—moderately acid to slightly alkaline

2C horizon:
Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—4 to 7
Chroma—1 to 8
Texture—stratified loam, sandy loam, sandy clay loam, clay loam, or silt loam; strata of sand or loamy sand
Reaction—moderately acid to moderately alkaline

149A—Brenton silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Footslopes

Map Unit Composition

Brenton and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that have more than 40 inches of loess in the upper part
- Soils that have a seasonal high water table within a depth of 1 foot

Dissimilar soils:
- The well drained Proctor soils on summits

Properties and Qualities of the Brenton Soil

Parent material: Loess over outwash
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Broadwell Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Argiudolls

Typical Pedon (Official Series Description)

Broadwell silt loam, 2 to 5 percent slopes; 136 feet south and 254 feet west of the northeast corner of sec. 20, T. 15 N., R. 3 W.; in Christian County, Illinois; USGS Mount Auburn topographic quadrangle; lat. 39 degrees 46 minutes 17 seconds N. and long. 89 degrees 16 minutes 51 seconds W., NAD 27:

Ap—0 to 8 inches; very dark gray (10YR 3/1) silt loam, grayish brown (10YR 5/2) dry; moderate very fine granular structure; friable; few fine roots; slightly acid; abrupt smooth boundary.

A—8 to 14 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate medium granular structure; friable; neutral; clear smooth boundary.

BA—14 to 21 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak fine subangular blocky structure; friable; many distinct dark brown (10YR 3/3) organic coats on faces of peds; neutral; clear smooth boundary.

Bt1—21 to 26 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; many distinct dark brown (10YR 3/3) clay films on faces of peds; moderately acid; gradual smooth boundary.

Bt2—26 to 38 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; common distinct dark brown (10YR 3/3) clay films on faces of peds; few fine faint yellowish brown (10YR 5/4) redoximorphic features; moderately acid; gradual smooth boundary.

Bt3—38 to 55 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak medium subangular blocky structure; friable; common distinct dark brown (10YR 3/3) clay films on faces of peds; few fine dark iron and manganese concretions; few fine distinct yellowish brown (10YR 5/6) and light gray (10YR 7/2) redoximorphic features; moderately acid; clear smooth boundary.

2Bt4—55 to 60 inches; dark yellowish brown (10YR 4/4) loamy sand; weak coarse subangular blocky structure; friable; common distinct dark brown (10YR 3/3) clay films on faces of peds; common fine distinct yellowish brown (10YR 5/6) and light brownish gray (10YR 6/2) redoximorphic features; moderately acid.

Range in Characteristics

Thickness of the loess: 40 to 60 inches
Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the solum: 45 to 65 inches

Ap or A horizon:
Value—2 or 3
Chroma—1 to 3
Reaction—moderately acid to neutral

BA or AB horizon and Bt horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 to 6
Reaction—moderately acid to neutral

2Bt or 2BC horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 6
Texture—loamy sand, loamy fine sand, fine sand, or sand
Reaction—moderately acid to neutral

2C horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 6
Texture—fine sand, sand, loamy fine sand, or loamy sand
Reaction—moderately acid to neutral

684B—Broadwell silt loam, 2 to 5 percent slopes

Setting

Landform: Outwash plains, ground moraines, and knolls
Position on the landform: Shoulders and backslopes

Map Unit Composition

Broadwell and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have less than 40 inches of loess over the underlying material
- Soils that have a seasonal high water table within a depth of 60 inches

Dissimilar soils:
- The moderately well drained Assumption soils on shoulders

Properties and Qualities of the Broadwell Soil

Parent material: Loess over eolian sands
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High

Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

684C2—Broadwell silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Outwash plains
Position on the landform: Shoulders

Map Unit Composition

Broadwell and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have less than 40 inches of loess over the underlying material
- Soils that have a seasonal high water table within a depth of 60 inches

Dissimilar soils:
- The moderately well drained Assumption soils on shoulders
- The poorly drained Sable soils on toeslopes

Properties and Qualities of the Broadwell Soil

Parent material: Loess over eolian sands
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Buckhart Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Oxyaquic Argiudolls

Typical Pedon (Official Series Description)

Buckhart silt loam, 2 to 5 percent slopes, at an elevation of 603 feet; 360 feet west and 540 feet north of the southeast corner of sec. 24, T. 14 N., R. 3 W.; in Christian County, Illinois; USGS Grove City topographic quadrangle; lat. 39 degrees 33 minutes 53 seconds N. and long. 89 degrees 22 minutes 06 seconds W., NAD 27:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate medium granular structure; friable; few very fine roots; moderately acid; clear smooth boundary.
A—8 to 15 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine subangular blocky structure parting to moderate medium granular; friable; few very fine roots; moderately acid; clear smooth boundary.
Bt1—15 to 26 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure parting to moderate medium granular; friable; few very fine roots; many distinct brown (10YR 4/3) clay films on faces of peds and few distinct very dark grayish brown (10YR 3/2) organic coats in root channels and/or pores; slightly acid; clear smooth boundary.
Bt2—26 to 37 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; few very fine roots; many distinct dark grayish brown (10YR 4/2) clay films on faces of peds; few fine irregular prominent strong brown (7.5YR 5/6) masses of iron and manganese along pores and few fine irregular prominent light brownish gray (2.5Y 6/2) iron depletions along pores; neutral; clear smooth boundary.
Bt3—37 to 52 inches; brown (10YR 5/3) silt loam; weak medium subangular blocky structure; friable; few very fine roots; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds;

common fine irregular prominent strong brown (7.5YR 5/6) masses of iron and manganese along pores, few fine rounded prominent black (7.5YR 2/1) iron-manganese nodules throughout, and common fine distinct irregular light brownish gray (2.5Y 6/2) iron depletions along pores; slightly acid; clear smooth boundary.

BCt—52 to 67 inches; light olive brown (2.5Y 5/3) silt loam; weak coarse subangular blocky structure; friable; few very fine roots; few distinct dark grayish brown (10YR 4/2) clay films in root channels and/or pores; common fine irregular prominent strong brown (7.5YR 5/6) masses of iron and manganese along pores, common fine irregular light brownish gray (2.5Y 6/2) iron depletions along pores, and few fine rounded prominent black (7.5YR 2/1) iron-manganese nodules throughout; neutral; gradual smooth boundary.

C—67 to 80 inches; yellowish brown (10YR 5/4) silt loam; massive; friable; common medium irregular distinct strong brown (7.5YR 5/6) masses of iron and manganese throughout, common medium irregular prominent light brownish gray (2.5Y 6/2) iron depletions throughout, and few fine rounded prominent black (7.5YR 2/1) iron-manganese nodules throughout; neutral.

Range in Characteristics

Thickness of the loess: More than 80 inches
Thickness of the mollic epipedon: 10 to 20 inches
Depth to the base of the argillic horizon: 40 to 55 inches
Depth to carbonates (if they occur): More than 40 inches

Ap and A horizons:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam or silty clay loam

Bt or Btg horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—2 to 6
Texture—silty clay loam or silt loam
Reaction—moderately acid to neutral

BC or BCg horizon:
Hue—10YR or 2.5Y
Value—5 or 6
Chroma—2 to 4
Texture—silt loam or silty clay loam
Reaction—neutral or slightly alkaline

C or Cg horizon:
Hue—10YR or 2.5Y
Value—5 or 6
Chroma—2 to 6
Reaction—neutral to moderately alkaline

705A—Buckhart silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines and knolls
Position on the landform: Summits

Map Unit Composition

Buckhart and similar soils: 93 percent
Dissimilar soils: 7 percent

Minor Components

Similar soils:
- Soils that have a seasonal high water table at a depth of less than 2 feet
- Soils that have a seasonal high water table at a depth of more than 3.5 feet

Dissimilar soils:
- The poorly drained Sable soils on toeslopes
- The poorly drained Denny soils in depressions

Properties and Qualities of the Buckhart Soil

Parent material: Loess
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 2 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Calco Series

Taxonomic classification: Fine-silty, mixed, superactive, calcareous, mesic Cumulic Endoaquolls

Typical Pedon

Calco silty clay loam, 0 to 2 percent slopes, frequently flooded; 1,100 feet east and 2,600 feet south of the northwest corner of sec. 19, T. 19 N., R. 4 E.; in Whiteside County, Illinois; USGS Spring Hill topographic quadrangle; lat. 41 degrees 37 minutes 14 seconds N. and long. 90 degrees 05 minutes 22 seconds W., NAD 27:

A1—0 to 17 inches; black (10YR 2/1) silty clay loam, very dark gray (10YR 3/1) dry; moderate medium granular structure; friable; few snail-shell fragments; slightly effervescent; slightly alkaline; gradual smooth boundary.

A2—17 to 30 inches; black (10YR 2/1) silty clay loam, very dark gray (10YR 3/1) dry; moderate medium and fine subangular blocky structure; friable; few snail-shell fragments; slightly effervescent; slightly alkaline; gradual smooth boundary.

A3—30 to 37 inches; black (10YR 2/1) silty clay loam, very dark gray (10YR 3/1) dry; weak medium and fine subangular blocky structure; friable; few snail-shell fragments; violently effervescent; slightly alkaline; gradual smooth boundary.

Bg—37 to 49 inches; very dark gray (10YR 3/1) silty clay loam, gray (10YR 5/1) dry; weak medium subangular blocky structure; friable; few snail-shell fragments; violently effervescent; slightly alkaline; clear smooth boundary.

Cg—49 to 60 inches; dark gray (5Y 4/1) loam; massive; friable; few thin lenses of sand; few snail-shell fragments; violently effervescent; moderately alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 30 to 50 inches
Thickness of the solum: 40 to 60 inches

Ap or A horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—2 or 3
Chroma—0 or 1
Texture—silty clay loam or silt loam

Bg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—3 to 6
Chroma—0 or 1
Texture—silty clay loam

Cg horizon:
Hue—2.5Y, 5Y, or N
Value—3 to 6
Chroma—0 or 1
Texture—loam, clay loam, silt loam, or silty clay loam

3400A—Calco silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform: Flood plains

Map Unit Composition

Calco and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that are not calcareous
- Soils that have a surface layer less than 24 inches thick
- Soils that have more sand and less silt than the Calco soil

Dissimilar soils:
- The moderately well drained Medway soils on flood plains

Properties and Qualities of the Calco Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 5 to 7 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Frequency of flooding: Frequent (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained and either protected from flooding or not frequently flooded during the growing season
Hydric soil status: Hydric

8400A—Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains

Map Unit Composition

Calco and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that are not calcareous
- Soils that have a surface layer less than 24 inches thick
- Soils that have more sand and less silt than the Calco soil

Dissimilar soils:
- The moderately well drained Medway soils on flood plains

Properties and Qualities of the Calco Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 5 to 7 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Frequency of flooding: Occasional (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Clarksdale Series

Taxonomic classification: Fine, smectitic, mesic Udollic Endoaqualfs

Typical Pedon (Official Series Description)

Clarksdale silt loam, 0 to 2 percent slopes, at an elevation of 650 feet; 800 feet south and 550 feet east of the northwest corner of sec. 16, T. 2 N., R. 7 W.; in Adams County, Illinois; USGS Lorraine topographic quadrangle; lat. 40 degrees 09 minutes 55 seconds N. and long. 91 degrees 13 minutes 18 seconds W., NAD 27:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; weak thin platy structure parting to weak fine subangular blocky; friable; common fine roots throughout; neutral; abrupt smooth boundary.

E—8 to 12 inches; dark grayish brown (10YR 4/2) silt loam; moderate medium platy structure parting to weak fine subangular blocky; friable; common very fine and fine roots throughout; many faint very dark grayish brown (10YR 3/2) organic coats on faces of peds and in pores; few fine distinct yellowish brown (10YR 5/6) iron concentrations lining root channels and/or pores; few fine distinct black (2.5Y 2.5/1) masses of iron and manganese throughout; many fine distinct light gray (10YR 7/1 and 7/2) clay depletions between peds; neutral; clear smooth boundary.

BE—12 to 16 inches; grayish brown (10YR 5/2) silt loam; moderate fine subangular blocky structure; friable; few fine roots throughout; common distinct very dark grayish brown (10YR 3/2) organo-clay films on faces of peds and in pores; few fine distinct black (2.5Y 2.5/1) masses of iron and manganese throughout; common fine distinct yellowish brown (10YR 5/6) masses of iron throughout; common fine faint light gray (10YR 7/1) clay depletions between peds; moderately acid; clear smooth boundary.

Bt1—16 to 23 inches; brown (10YR 5/3) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine and fine roots throughout; many prominent dark grayish brown (10YR 4/2) clay films on faces of peds and many prominent very dark gray (10YR 3/1) organo-clay films on faces of peds and in pores; common fine distinct black (2.5Y 2.5/1) masses of iron and manganese and common fine distinct yellowish brown (10YR 5/6) masses of iron throughout; moderately acid; clear smooth boundary.

Bt2—23 to 31 inches; brown (10YR 5/3) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; few fine roots throughout; many faint grayish brown (10YR 5/2) clay films on faces of peds and many prominent very dark gray (10YR 3/1) organo-clay films on faces of peds and in pores; many fine distinct yellowish brown (10YR 5/6) and few fine distinct strong brown (7.5YR 5/6) masses of iron throughout; common fine distinct black (2.5Y 2.5/1) masses of iron and manganese throughout; common fine faint light brownish gray (10YR 6/2) iron depletions throughout; moderately acid; gradual wavy boundary.

Btg1—31 to 47 inches; light brownish gray (2.5Y 6/2) silty clay loam; moderate coarse prismatic structure parting to moderate coarse subangular blocky; firm; few fine roots throughout; common prominent grayish brown (10YR 5/2) clay films on faces of peds and many prominent very dark gray (10YR 3/1) organo-clay films on faces of peds and in pores; many fine and medium prominent strong brown (7.5YR 5/6) masses of iron throughout; few fine distinct black (2.5Y 2.5/1) masses of iron and manganese throughout; few fine faint light brownish gray (10YR 6/2) iron depletions lining root channels and/or pores; neutral; gradual wavy boundary.

Btg2—47 to 57 inches; light brownish gray (2.5Y 6/2) silt loam; weak coarse prismatic structure; firm; few fine roots throughout; common prominent dark grayish brown (10YR 4/2) clay films in root channels and/or pores; many medium prominent strong brown (7.5YR 5/6) masses of iron; few fine distinct black (2.5Y 2.5/1) masses of iron and manganese throughout; neutral; clear wavy boundary.

BCg—57 to 67 inches; light brownish gray (2.5Y 6/2) silt loam; weak coarse subangular blocky structure; firm; common prominent dark grayish brown (10YR 4/2) clay films in root channels and/or pores; common medium prominent strong brown (7.5YR 5/6) and common medium prominent yellowish red (5YR 5/6) masses of iron throughout; neutral; clear wavy boundary.

Cg—67 to 80 inches; light brownish gray (10YR 6/2) silt loam; massive; friable; few distinct dark grayish brown (10YR 4/2) clay films in root channels and/or pores; many medium prominent yellowish red (5YR 4/6) and common medium distinct strong brown (7.5YR 5/6) masses of iron throughout; neutral.

Range in Characteristics

Depth to carbonates: 40 to 72 inches
Depth to the base of the argillic horizon: 40 to 60 inches

Ap or A horizon:
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

E or BE horizon:
Value—4 to 6
Chroma—1 or 2
Texture—silt loam

Bt horizon:
Hue—10YR
Value—4 to 6
Chroma—2 or 3
Texture—silty clay loam or silty clay

Btg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 4
Texture—silty clay loam, silty clay, or silt loam

Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 6

257A—Clarksdale silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Clarksdale and similar soils: 93 percent
Dissimilar soils: 7 percent

Minor Components

Similar soils:
• Soils that have a thicker surface layer than that of the Clarksdale soil
• Soils that have a lighter colored surface layer than that of the Clarksdale soil

Dissimilar soils:
- The well drained Fayette, Greenbush, and Rozetta soils on shoulders
- The poorly drained Denny soils in depressions

Properties and Qualities of the Clarksdale Soil

Parent material: Loess
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: High
Depth and months of highest apparent seasonal high water table: 0.5 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland where drained
Hydric soil status: Not hydric

Cohoctah Series

Taxonomic classification: Coarse-loamy, mixed, active, mesic Fluvaquentic Endoaquolls

Typical Pedon

Cohoctah loam, 0 to 2 percent slopes, occasionally flooded; 1,420 feet north and 820 feet west of the southeast corner of sec. 27, T. 19 N., R. 7 E.; in Whiteside County, Illinois; USGS New Bedford topographic quadrangle; lat. 41 degrees 36 minutes 12 seconds N. and long. 89 degrees 40 minutes 24 seconds W., NAD 27:

Ap—0 to 10 inches; black (N 2/0) loam, very dark gray (10YR 3/1) dry; weak medium subangular blocky structure parting to moderate fine granular; friable; common very fine roots; slightly acid; abrupt wavy boundary.

A—10 to 19 inches; black (N 2/0) loam; thin strata of dark grayish brown (10YR 4/2) sandy loam, clay loam, and sand; dark gray (10YR 4/1) dry; weak fine and medium subangular blocky structure; friable; common very fine roots throughout; few fine prominent dark yellowish brown (10YR 4/4) iron masses in the matrix; neutral; clear wavy boundary.

Cg1—19 to 28 inches; grayish brown (10YR 5/2) loamy sand; thin strata of black (N 2/0) loam and sandy loam; weak medium and coarse subangular blocky structure; very friable; common fine faint brown (10YR 5/3) and few fine distinct yellowish brown (10YR 5/4) iron masses in the matrix; neutral; clear wavy boundary.

Cg2—28 to 40 inches; pale brown (10YR 6/3) fine sand; thin strata of very dark gray (10YR 3/1), very dark grayish brown (10YR 3/2), dark grayish brown (10YR 4/2), and yellowish brown (10YR 5/8) sandy loam and loam; single grain; loose; neutral; gradual wavy boundary.

Cg3—40 to 60 inches; pale brown (10YR 6/3) sand; thin strata of very dark grayish brown (10YR 3/2) loam; single grain; loose; few fine faint light brownish gray (10YR 6/2) iron depletions; few fine distinct yellowish brown (10YR 5/6) iron masses in the matrix; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 18 inches

Ap or A horizon:
Hue—10YR, 2.5Y, or N
Value—2 or 3
Chroma—0 to 2
Texture—loam, silt loam, sandy loam, or fine sandy loam

Cg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—2 to 6
Chroma—0 to 3
Texture—loam or sandy loam; thin strata of coarser textured material

8166A—Cohoctah loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains

Map Unit Composition

Cohoctah and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have more silt or clay and less sand than the Cohoctah soil

Dissimilar soils:
- The somewhat poorly drained Hoopeston soils on outwash plains

Properties and Qualities of the Cohoctah Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 6 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Frequency of flooding: Occasional (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Coloma Series

Taxonomic classification: Mixed, mesic Lamellic Udipsamments

Typical Pedon

Coloma sand, 1 to 7 percent slopes; 1,500 feet east and 1,800 feet south of the northwest corner of sec. 20, T. 14 N., R. 5 W.; in Mercer County, Illinois; USGS Joy topographic quadrangle; lat. 41 degrees 11 minutes 49 seconds N. and long. 90 degrees 59 minutes 23 seconds W., NAD 27:

Ap—0 to 9 inches; dark grayish brown (10YR 4/2) sand, light grayish brown (10YR 6/2) dry; weak medium granular structure; very friable; neutral; clear wavy boundary.

Bw1—9 to 16 inches; brown (10YR 4/3) sand; single grain; loose; neutral; gradual wavy boundary.

Bw2—16 to 29 inches; dark yellowish brown (10YR 4/4) sand; single grain; loose; slightly acid; gradual wavy boundary.

Bw3—29 to 50 inches; yellowish brown (10YR 5/4) sand; single grain; loose; slightly acid; abrupt smooth boundary.

E&Bt1—50 to 65 inches; about 95 percent yellowish brown (10YR 5/4) sand (E); single grain; loose; about 5 percent brown (7.5YR 4/4) loamy sand (Bt) consisting of several thin lamellae (total thickness less than 1 inch); weak fine and medium subangular blocky structure; very friable; neutral; clear smooth boundary.

E&Bt2—65 to 80 inches; about 90 percent yellowish brown (10YR 5/4) sand (E); single grain; loose; about 10 percent brown (7.5YR 4/4) loamy sand (Bt) consisting of several thin lamellae (total thickness less than 2 inches); weak fine and medium subangular blocky structure; very friable; neutral.

Range in Characteristics

Depth to first lamellae: 40 to 60 inches

Ap or A horizon:
Hue—7.5YR or 10YR
Value—2 to 4
Chroma—1 to 3
Texture—sand or loamy sand

Bw horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—4 to 6
Texture—sand or loamy sand

E part of the E&Bt horizon:
Hue—5YR, 7.5YR, or 10YR
Value—4 to 7
Chroma—3 to 6
Texture—sand, loamy sand, or sandy loam

Bt part of the E&Bt horizon:
Hue—5YR, 7.5YR, or 10YR
Value—3 to 5
Chroma—3 to 6
Texture—sandy loam, loamy sand, or sand

C horizon (if it occurs):
Hue—5YR, 7.5YR, or 10YR
Value—4 to 7
Chroma—3 to 6
Texture—sand

689B—Coloma sand, 1 to 7 percent slopes

Setting

Landform: Dunes
Position on the landform: Shoulders

Map Unit Composition

Coloma and similar soils: 100 percent

Minor Components

Similar soils:
• Soils that have a darker surface layer than that of the Coloma soil
• Soils that have less textural banding in the lower part than the Coloma soil

Properties and Qualities of the Coloma Soil

Parent material: Eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Moderately rapid or rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very high

Interpretive Groups

Land capability classification: 4s
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

689D—Coloma sand, 7 to 15 percent slopes

Setting

Landform: Dunes
Position on the landform: Shoulders

Map Unit Composition

Coloma and similar soils: 100 percent

Minor Components

Similar soils:
• Soils that have a darker surface layer than that of the Coloma soil
• Soils that have less textural banding in the lower part than the Coloma soil

Properties and Qualities of the Coloma Soil

Parent material: Eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Moderately rapid or rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Very high

Interpretive Groups

Land capability classification: 6s
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Coyne Series

Taxonomic classification: Coarse-loamy, mixed, active, mesic Typic Argiudolls
Taxadjunct features: The Coyne soil in map unit 764B contains less fine sand and coarser sand in the upper part of the profile than is defined as the range for the series and has more clay in the lacustrine sediments. Also, the lacustrine sediments have colors with slightly lower chroma than is defined as the range for the series. This soil is classified as a coarse-silty, mixed, active, mesic Typic Argiudoll.

Typical Pedon (Official Series Description)

Coyne fine sandy loam, 0 to 2 percent slopes; 244 feet east and 847 feet south of the center of sec. 10, T. 20 N., R. 2 E.; in Rock Island County, Illinois; USGS

Cordova topographic quadrangle; lat. 41 degrees 44 minutes 04 seconds N. and long. 90 degrees 15 minutes 21 seconds W., NAD 27:

Ap—0 to 9 inches; very dark gray (10YR 3/1) fine sandy loam, gray (10YR 5/1) dry; weak coarse subangular blocky structure parting to moderate very fine and fine granular; very friable; slightly acid; abrupt smooth boundary.

A1—9 to 13 inches; black (10YR 2/1) fine sandy loam, dark gray (10YR 4/1) dry; weak coarse subangular blocky structure parting to moderate very fine and fine granular; very friable; slightly acid; clear smooth boundary.

A2—13 to 23 inches; very dark gray (10YR 3/1) and very dark grayish brown (10YR 3/2) fine sandy loam, gray (10YR 5/1) and grayish brown (10YR 5/2) dry; moderate fine granular structure; very friable; slightly acid; clear smooth boundary.

BA—23 to 28 inches; intermingled very dark grayish brown (10YR 3/2), dark brown (10YR 3/3), and dark grayish brown (10YR 4/2) fine sandy loam; weak coarse subangular blocky structure parting to very fine and fine granular; very friable; moderately acid; clear smooth boundary.

Bw—28 to 42 inches; brown (7.5YR 4/4) fine sandy loam; weak coarse subangular blocky structure; very friable; few fine black (10YR 2/1) iron and manganese concretions; moderately acid; clear smooth boundary.

2Bt1—42 to 52 inches; reddish brown (5YR 4/4) silty clay loam; strong medium and coarse subangular blocky structure; firm; many distinct dark reddish brown (5YR 3/3) clay films on faces of peds; moderately acid; abrupt smooth boundary.

2Bt2—52 to 55 inches; reddish brown (5YR 4/4) loam; strong medium and coarse subangular blocky structure; firm; many distinct dark reddish brown (5YR 3/3) clay films on faces of peds; moderately acid; abrupt smooth boundary.

3C—55 to 60 inches; brown (7.5YR 4/4) sand and gravel; single grain; loose; moderately acid.

Range in Characteristics

Thickness of the solum: 48 to 72 inches
Depth to the argillic horizon: More than 40 inches

A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—loam, fine sandy loam, or loamy fine sand
Reaction—moderately acid to neutral

Bw horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 5
Texture—loam or fine sandy loam
Reaction—moderately acid to neutral

2Bt horizon:
Hue—5YR or 2.5YR
Value—4 to 6
Chroma—3 to 6
Texture—loam, silt loam, silty clay loam, or silty clay
Reaction—moderately acid to neutral

3C horizon:
Hue—7.5YR or 10YR
Value—3 to 6
Chroma—3 to 8
Texture—sand or sand and gravel with strata of clay loam, loam, silty clay loam, or silt loam
Reaction—moderately acid to moderately alkaline

764A—Coyne fine sandy loam, 0 to 2 percent slopes

Setting

Landform: Lake plains
Position on the landform: Summits

Map Unit Composition

Coyne and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have more clay and less sand in the underlying material than the Coyne soil
- Soils that have more sand and less silt and clay in the upper part than the Coyne soil
- Soils that have a perched water table within a depth of 60 inches

Dissimilar soils:
- The somewhat poorly drained Denrock soils on footslopes

Properties and Qualities of the Coyne Soil

Parent material: Lacustrine deposits
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately slow

Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2s
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

764B—Coyne loam, 2 to 5 percent slopes

Setting

Landform: Lake plains
Position on the landform: Summits and shoulders

Map Unit Composition

Coyne and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have more clay and less sand in the underlying material than the Coyne soil
- Soils that have more sand and less silt and clay in the upper part than the Coyne soil
- Soils that have a perched water table within a depth of 60 inches

Dissimilar soils:
- The somewhat poorly drained Denrock soils on footslopes

Properties and Qualities of the Coyne Soil

Parent material: Lacustrine deposits
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Cresent Series

Taxonomic classification: Fine-loamy, mixed, superactive, mesic Typic Argiudolls
Taxadjunct features: The Cresent soil in map unit 672D3 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as a Mollic Hapludalf.

Typical Pedon (Official Series Description)

Cresent loam, 0 to 2 percent slopes, at an elevation of 510 feet; 255 feet south and 2,346 feet west of the northeast corner of sec. 28, T. 24 N., R. 5 W.; in Tazewell County, Illinois; USGS Pekin topographic quadrangle; lat. 40 degrees 30 minutes 40 seconds N. and long. 89 degrees 40 minutes 15 seconds W., NAD 27:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) loam, grayish brown (10YR 5/2) dry; weak medium granular structure; friable; few very fine roots; moderately acid; abrupt smooth boundary.
A—8 to 15 inches; very dark grayish brown (10YR 3/2) loam, grayish brown (10YR 5/2) dry; weak fine subangular blocky structure; friable; few very fine roots; moderately acid; clear smooth boundary.
AB—15 to 18 inches; dark brown (10YR 3/3) loam, brown (10YR 5/3) dry; weak fine and medium subangular blocky structure; friable; few very fine roots; common faint very dark grayish brown (10YR 3/2) organic coats on faces of peds; moderately acid; clear smooth boundary.
Bt1—18 to 27 inches; brown (10YR 4/3) clay loam; moderate medium subangular blocky structure; friable; few very fine roots; common distinct very dark grayish brown (10YR 3/2) organic coats on faces of peds; moderately acid; clear smooth boundary.
Bt2—27 to 34 inches; dark yellowish brown (10YR 4/4) loam; moderate medium subangular blocky

structure; friable; few very fine roots; common faint brown (10YR 4/3) clay films on faces of peds; slightly acid; clear smooth boundary.
Bt3—34 to 46 inches; brown (7.5YR 4/4) loam; moderate medium subangular blocky structure; friable; few very fine roots; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds; slightly acid; abrupt smooth boundary.
C1—46 to 60 inches; brown (7.5YR 4/4) loamy sand and sand; massive; very friable; neutral; abrupt smooth boundary.
C2—60 to 80 inches; brown (7.5YR 4/4) sand; massive; loose; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the solum: 40 to 60 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—loam, silt loam, or fine sandy loam

AB horizon (if it occurs):
Hue—10YR
Value—3 or 4
Chroma—3 or 4

Bt horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture—clay loam, sandy clay loam, or loam

C horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—sand or loamy sand

672A—Cresent loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits

Map Unit Composition

Cresent and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
• Soils that have less clay in the subsoil than the Cresent soil
• Soils that have a layer of loess 1 to 2 feet thick on the surface
• Soils that have a seasonal high water table within a depth of 60 inches

Dissimilar soils:
• The somewhat poorly drained La Hogue soils on footslopes
• The poorly drained Selma soils on toeslopes

Properties and Qualities of the Cresent Soil

Parent material: Outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

672B—Cresent loam, 2 to 5 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Shoulders

Map Unit Composition

Cresent and similar soils: 87 percent
Dissimilar soils: 13 percent

Minor Components

Similar soils:
• Soils that have less clay in the subsoil than the Cresent soil
• Soils that have a layer of loess 1 to 2 feet thick on the surface
• Soils that have a seasonal high water table within a depth of 60 inches

Dissimilar soils:
- The somewhat poorly drained La Hogue soils on footslopes
- The poorly drained Selma soils on footslopes

Properties and Qualities of the Cresent Soil

Parent material: Outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

672D3—Cresent loam, 10 to 18 percent slopes, severely eroded

Setting

Landform: Outwash plains
Position on the landform: Backslopes

Map Unit Composition

Cresent and similar soils: 100 percent

Minor Components

Similar soils:
- Soils that have less clay in the subsoil than the Cresent soil
- Soils that have a layer of loess 1 to 2 feet thick on the surface

Properties and Qualities of the Cresent Soil

Parent material: Outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Denny Series

Taxonomic classification: Fine, smectitic, mesic Mollic Albaqualfs

Typical Pedon

Denny silt loam, 0 to 2 percent slopes, at an elevation of 720 feet; in McDonough County, Illinois; 225 feet north and 1,680 feet east of the southwest corner of sec. 25, T. 7 N., R. 3 W.; USGS Good Hope topographic quadrangle; lat. 40 degrees 33 minutes 31 seconds N. and long. 90 degrees 41 minutes 14 seconds W., NAD 27:

Ap—0 to 8 inches; very dark gray (10YR 3/1) silt loam, gray (10YR 5/1) dry; weak fine granular structure; very friable; few very fine roots throughout; moderately acid; abrupt smooth boundary.

Eg1—8 to 14 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak thick platy structure parting to weak thin platy; very friable; few very fine roots throughout; few very fine vesicular pores throughout; few distinct very dark gray (10YR 3/1) organic coats in root channels; common faint grayish brown (10YR 5/2) clay depletions on faces of peds; common fine distinct dark yellowish brown (10YR 3/6) masses of iron and manganese accumulation throughout; few fine black (N 2/0) iron and manganese concretions in the matrix; moderately acid; clear smooth boundary.

Eg2—14 to 21 inches; grayish brown (10YR 5/2) silt loam, light gray (10YR 7/2) dry; weak thick platy structure parting to moderate medium platy; friable; few very fine roots throughout; few fine tubular pores and few very fine vesicular pores throughout; few distinct very dark gray (10YR 3/1) organic coats in root channels; common fine distinct dark brown (10YR 3/3) masses of iron and manganese accumulation throughout; common fine black (N 2/0) iron and manganese concretions in the matrix; moderately acid; abrupt smooth boundary.

Btg1—21 to 29 inches; grayish brown (10YR 5/2) silty clay loam; moderate fine and medium subangular blocky structure; firm; few very fine roots between peds; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; few distinct very dark gray (10YR 3/1) organic coats in root channels; many fine distinct dark yellowish brown (10YR 4/6) and common fine faint yellowish brown (10YR 5/4) masses of iron and manganese accumulation throughout; common fine black (N 2/0) iron and manganese concretions in the matrix; moderately acid; clear smooth boundary.

Btg2—29 to 38 inches; grayish brown (10YR 5/2) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots between peds; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; few distinct very dark gray (10YR 3/1) organic coats in root channels; many fine distinct dark yellowish brown (10YR 4/6) and common fine distinct yellowish brown (10YR 5/8) masses of iron and manganese accumulation throughout; common fine (N 2/0) iron and manganese concretions in the matrix; moderately acid; gradual smooth boundary.

Btg3—38 to 46 inches; light brownish gray (2.5Y 6/2) silty clay loam; moderate coarse prismatic structure parting to moderate coarse subangular blocky; firm; very few fine roots between peds; common distinct dark grayish brown (10YR 4/2) clay films on faces of peds; few distinct very dark gray (10YR 3/1) organic coats in root channels; many fine prominent dark yellowish brown (10YR 4/6) and common fine prominent strong brown (7.5YR 5/6) masses of iron and manganese accumulation throughout; common fine black (N 2/0) iron and manganese concretions in the matrix; moderately acid; gradual wavy boundary.

Cg1—46 to 63 inches; light brownish gray (2.5Y 6/2) silty clay loam; massive; firm; few very fine roots between peds; few very fine vesicular pores throughout; very few distinct very dark gray (10YR 3/1) organic coats in root channels; many fine prominent dark yellowish brown (10YR 4/6) and common fine prominent strong brown (7.5YR 5/6) masses of iron and manganese accumulation throughout; few medium black (N 2/0) iron and manganese concretions in the matrix; slightly acid; diffuse wavy boundary.

Cg2—63 to 80 inches; light brownish gray (2.5Y 6/2) silt loam; massive; firm; many very fine vesicular pores throughout; very few distinct very dark gray (10YR 3/1) organic coats in root channels; many fine prominent dark yellowish brown (10YR 4/6) and common fine prominent strong brown (7.5YR 5/6) masses of iron and manganese accumulation throughout; few medium black (N 2/0) iron and manganese concretions in the matrix; slightly acid.

Range in Characteristics

Depth to base of diagnostic horizon: 40 to 65 inches

Ap or A horizon:
Hue—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—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—silty clay loam or silty clay

Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—silt loam or silty clay loam

45A—Denny silt loam, 0 to 2 percent slopes

Setting

Landform: Depressions (fig. 4)

Map Unit Composition

Denny and similar soils: 98 percent
Dissimilar soils: 2 percent

Minor Components

Similar soils:
• Soils that have a thicker surface layer than that of the Denny soil

Figure 4.—The Denny soil is in depressions and is subject to frequent periods of ponding.

• Soils that have less clay in the subsoil than the Denny soil

Dissimilar soils:
• The moderately well drained Buckhart soils on summits
• The well drained Osco soils on summits

Properties and Qualities of the Denny Soil

Parent material: Loess
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: High
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.5 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Denrock Series

Taxonomic classification: Fine, mixed, superactive, mesic Aquic Argiudolls

Typical Pedon

Denrock silt loam, 0 to 2 percent slopes; 100 feet south and 740 feet west of the northeast corner of sec. 7, T. 19 N., R. 5 E.; in Whiteside County, Illinois; USGS Prophetstown topographic quadrangle; lat. 41 degrees 39 minutes 20 seconds N. and long. 89 degrees 57 minutes 42 seconds W., NAD 27:

Ap—0 to 7 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; weak fine subangular blocky structure parting to weak medium granular; friable; moderately acid; abrupt smooth boundary.

A—7 to 13 inches; dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; weak medium subangular blocky structure parting to weak medium granular; friable; many distinct dark brown (7.5YR 3/2) organic coats on faces of peds; moderately acid; clear smooth boundary.

BA—13 to 18 inches; brown (7.5YR 4/4) silty clay loam; moderate medium and fine subangular blocky structure; friable; few distinct dark brown (7.5YR 3/2) organic coats on faces of peds; few distinct reddish brown (5YR 4/3) clay films on faces of peds; moderately acid; clear smooth boundary.

Bt1—18 to 26 inches; reddish brown (5YR 4/4) silty clay loam; moderate medium and fine subangular blocky structure; friable; many faint reddish brown (5YR 4/3) clay films on faces of peds; moderately acid; clear smooth boundary.

2Bt2—26 to 36 inches; reddish brown (5YR 4/4) silty clay; moderate medium prismatic structure parting to strong medium angular blocky; firm; common faint reddish brown (5YR 4/3) clay films on faces of peds; few fine prominent brown (7.5YR 5/2) and red (2.5YR 4/6) iron masses in the matrix; moderately acid; abrupt smooth boundary.

2Bt3—36 to 40 inches; brown (10YR 5/3) loam; moderate coarse angular blocky structure; friable; common distinct brown (7.5YR 4/4) clay films on faces of peds; few fine distinct yellowish brown (10YR 5/6), few fine distinct strong brown (7.5YR 4/6), and few fine faint pale brown (10YR 6/3) iron masses in the matrix; slightly acid; abrupt smooth boundary.

3Bt4—40 to 48 inches; yellowish brown (10YR 5/4) sandy loam; weak coarse subangular blocky structure; friable; few prominent brown (7.5YR 4/4) clay films on faces of peds; few fine distinct grayish brown (10YR 5/2) iron depletions and few fine distinct yellowish brown (10YR 5/4) iron masses in the matrix; slightly acid; clear smooth boundary.

3C—48 to 60 inches; brown (7.5YR 5/4) sand; single grain; loose; few medium prominent yellowish brown (10YR 5/4) and few fine faint strong brown (7.5YR 5/8) iron masses in the matrix; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 16 inches
Thickness of the solum: 36 to 60 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam or silty clay loam

2Bt horizon:
Hue—5YR or 2.5YR
Value—3 to 5
Chroma—3 to 6
Texture—silty clay loam, silty clay, or clay

3Bt horizon:
Hue—2.5YR to 2.5Y
Value—4 or 5
Chroma—2 to 4
Texture—clay loam, loam, or sandy clay loam (with strata)

3C horizon:
Hue—5YR, 7.5YR, or 10YR
Value—4 or 5
Chroma—3 or 4
Texture—loamy sand or sand with strata of finer textures

262A—Denrock silt loam, 0 to 2 percent slopes

Setting

Landform: Lake plains
Position on the landform: Summits

Map Unit Composition

Denrock and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a dark surface layer less than 10 inches thick
- Soils that are poorly drained

Dissimilar soils:
- The well drained Coyne soils on summits

Properties and Qualities of the Denrock Soil

Parent material: Glaciolacustrine deposits

Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest perched seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: High
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Dickinson Series

Taxonomic classification: Coarse-loamy, mixed, superactive, mesic Typic Hapludolls
Taxadjunct features: The Dickinson soil in map unit 87B2 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as a Dystric Eutrudept.

Typical Pedon

Dickinson sandy loam, 0 to 2 percent slopes; 360 feet north and 1,720 feet west of the center of sec. 17, T. 17 N., R. 6 E.; in Bureau County, Illinois; USGS Mineral topographic quadrangle; lat. 41 degrees 27 minutes 37 seconds N. and long. 89 degrees 50 minutes 09 seconds W., NAD 27:

Ap—0 to 8 inches; very dark brown (10YR 2/2) sandy loam, dark grayish brown (10YR 4/2) dry; weak fine granular structure; very friable; few fine roots; moderately acid; abrupt smooth boundary.
A1—8 to 15 inches; very dark brown (10YR 2/2) sandy loam, dark grayish brown (10YR 4/2) dry; weak medium subangular blocky structure; very friable; few fine roots; moderately acid; clear smooth boundary.
A2—15 to 20 inches; very dark grayish brown (10YR 3/2) sandy loam, grayish brown (10YR 5/2) dry; weak medium subangular blocky structure; very friable; few fine roots; common very dark brown (10YR 2/2) organic coats on faces of peds; slightly acid; clear smooth boundary.
Bw—20 to 31 inches; brown (10YR 4/3) sandy loam; weak medium prismatic structure parting to weak medium subangular blocky; very friable; few fine roots; many distinct dark brown (10YR 3/3) organic coats on faces of peds; slightly acid; clear smooth boundary.
Bt—31 to 36 inches; yellowish brown (10YR 5/6) loamy sand; weak medium prismatic structure parting to weak medium subangular blocky; very friable; common distinct brown (10YR 4/3) clay films bridging sand grains; slightly acid; clear smooth boundary.
BC—36 to 47 inches; yellowish brown (10YR 5/6) sand; weak coarse prismatic structure; very friable; moderately acid; clear smooth boundary.
C—47 to 60 inches; yellowish brown (10YR 5/6) sand; single grain; loose; strong brown (7.5YR 5/6) bands $^1/_2$ inch to 2 inches thick at depths of 52, 56, and 58 inches; moderately acid.

Range in Characteristics

Thickness of the mollic epipedon: 12 to 24 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—fine sandy loam, sandy loam, or loam

Bw horizon:
Hue—10YR
Value—3 to 5
Chroma—2 to 4
Texture—sandy loam or fine sandy loam

BC and/or C horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture—loamy sand, sand, loamy fine sand, or fine sand

87A—Dickinson sandy loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits

Map Unit Composition

Dickinson and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a surface layer less than 10 inches thick
- Soils that have more sand than the Dickinson soil
- Soils that have more clay than the Dickinson soil

Dissimilar soils:
- The poorly drained Gilford soils on footslopes
- The somewhat poorly drained Hoopeston soils on footslopes

Properties and Qualities of the Dickinson Soil

Parent material: Eolian sands over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 5.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2s
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

87B—Dickinson sandy loam, 2 to 5 percent slopes

Setting

Landform: Dunes
Position on the landform: Shoulders

Map Unit Composition

Dickinson and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a surface layer less than 10 inches thick
- Soils that have more sand than the Dickinson soil
- Soils that have more clay than the Dickinson soil

Dissimilar soils:
- The poorly drained Gilford soils on footslopes
- The somewhat poorly drained Hoopeston soils on footslopes

Properties and Qualities of the Dickinson Soil

Parent material: Eolian sands
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 5.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

87B2—Dickinson sandy loam, 2 to 7 percent slopes, eroded

Setting

Landform: Dunes
Position on the landform: Shoulders

Map Unit Composition

Dickinson and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a surface layer more than 10 inches thick
- Soils that have more sand than the Dickinson soil
- Soils that have more clay than the Dickinson soil

Dissimilar soils:
- The poorly drained Gilford and Selma soils on footslopes

- The somewhat poorly drained Hoopeston soils on footslopes

Properties and Qualities of the Dickinson Soil

Parent material: Eolian sands
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

87C2—Dickinson sandy loam, 5 to 10 percent slopes, eroded

Setting

Landform: Dunes
Position on the landform: Backslopes

Map Unit Composition

Dickinson and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a surface layer more than 10 inches thick
- Soils that have more sand than the Dickinson soil
- Soils that have more clay than the Dickinson soil

Dissimilar soils:
- The somewhat poorly drained Hoopeston soils on footslopes

Properties and Qualities of the Dickinson Soil

Parent material: Eolian sands
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 5.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Drummer Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Endoaquolls

Typical Pedon (Official Series Description)

Drummer silty clay loam, 0 to 2 percent slopes; 1,600 feet east and 300 feet north of the southwest corner of sec. 19, T. 19 N., R. 9 E.; in Champaign County, Illinois; USGS Urbana topographic quadrangle; lat. 40 degrees 05 minutes 04 seconds N. and long. 88 degrees 13 minutes 58 seconds W., NAD 27:

Ap—0 to 7 inches; black (10YR 2/1) silty clay loam, dark gray (10YR 4/1) dry; weak very fine granular structure; firm; many fine roots; moderately acid; clear smooth boundary.
A—7 to 14 inches; black (10YR 2/1) silty clay loam, dark gray (10YR 4/1) dry; moderate fine subangular blocky structure parting to weak fine granular; firm; many fine and medium roots throughout; slightly acid; clear smooth boundary.
BA—14 to 19 inches; very dark gray (10YR 3/1) silty clay loam, gray (10YR 5/1) dry; moderate fine and medium subangular blocky structure; firm; many fine and medium roots between peds; few fine distinct very dark grayish brown (2.5Y 3/2) iron depletions; slightly acid; gradual smooth boundary.
Bg—19 to 25 inches; dark gray (10YR 4/1) silty clay

loam; moderate fine prismatic structure parting to moderate fine angular blocky; firm; many fine roots between peds; many wormholes throughout; common fine distinct yellowish brown (10YR 5/4) iron masses in the matrix; neutral; gradual smooth boundary.

Btg1—25 to 32 inches; grayish brown (2.5Y 5/2) silty clay loam; weak fine and medium prismatic structure parting to moderate fine angular blocky; firm; many fine roots; few distinct dark gray (N 4/0) clay films on faces of peds; many medium prominent yellowish brown (10YR 5/4) iron masses in the matrix; neutral; gradual wavy boundary.

Btg2—32 to 41 inches; yellowish brown (10YR 5/4) silty clay loam; weak medium prismatic structure parting to weak medium angular blocky; firm; few fine roots between peds; few prominent dark gray (N 4/0) clay films on faces of peds; many medium prominent gray (N 5/0) iron depletions; neutral; clear wavy boundary.

2Btg3—41 to 47 inches; yellowish brown (10YR 5/6) loam; weak coarse subangular blocky structure; friable; few fine roots between peds; few prominent dark gray (10YR 4/1) clay films on faces of peds; common medium prominent gray (N 5/0) iron depletions; neutral; abrupt wavy boundary.

2Cg—47 to 60 inches; dark gray (10YR 4/1), stratified loam and sandy loam; massive; friable; many medium prominent olive brown (2.5Y 4/4) iron masses and gray (N 5/0) iron depletions in the matrix; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 22 inches
Thickness of the loess: 40 to 60 inches
Depth to free carbonates: 40 to 65 inches
Thickness of the solum: 42 to 65 inches

Ap or A horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—2 or 3
Chroma—0 to 2
Texture—silty clay loam

Bg or Btg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—3 to 6
Chroma—0 to 4
Texture—silty clay loam or silt loam (lower part)

2Bg or 2Btg horizon:
Hue—7.5YR to 5Y or N
Value—4 to 6
Chroma—0 to 2
Texture—loam or silt loam with strata of sandy loam, clay loam, sandy clay loam, or silty clay loam

2C horizon:
Hue—7.5YR to 5Y or N
Value—4 to 7
Chroma—0 to 8
Texture—stratified loam, silt loam, clay loam, sandy clay loam, silty clay loam, or sandy loam

152A—Drummer silty clay loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Toeslopes

Map Unit Composition

Drummer and similar soils: 92 percent
Dissimilar soils: 8 percent

Minor Components

Similar soils:
- Soils that contain more than 35 percent clay
- Soils that are calcareous within a depth of 40 inches
- Soils that contain more sand and less silt than the Drummer soil
- Soils that have more than 40 inches of loess in the upper part
- Soils that have a seasonal high water table that does not extend to the surface

Dissimilar soils:
- The well drained Plano and Proctor soils on summits

Properties and Qualities of the Drummer Soil

Parent material: Loess over outwash
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 5 to 7 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Elburn Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aquic Argiudolls

Typical Pedon (Official Series Description)

Elburn silt loam, 0 to 2 percent slopes; 1,320 feet north and 50 feet west of the southeast corner of sec. 2, T. 20 N., R. 2 E.; in Logan County, Illinois; USGS Lincoln East topographic quadrangle; lat. 40 degrees 12 minutes 30 seconds N. and long. 89 degrees 16 minutes 27 seconds W., NAD 27:

Ap—0 to 7 inches; black (10YR 2/1) silt loam, dark grayish brown (10YR 4/2) dry; moderate fine and very fine granular structure; friable; common very fine roots throughout; slightly alkaline; abrupt smooth boundary.

A—7 to 13 inches; black (10YR 2/1) silt loam, grayish brown (10YR 5/2) dry; moderate fine granular structure; friable; common very fine roots throughout; slightly alkaline; clear smooth boundary.

Bt1—13 to 17 inches; brown (10YR 4/3) silty clay loam; moderate very fine and fine subangular blocky structure; friable; common very fine roots between peds; common distinct black (10YR 2/1) organic coats on faces of peds; neutral; clear smooth boundary.

Bt2—17 to 25 inches; brown (10YR 4/3) silty clay loam; moderate medium subangular blocky structure; firm; few very fine roots between peds; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; few very fine black (5YR 2/1) concretions of iron-manganese throughout the matrix; few fine distinct yellowish brown (10YR 5/6) iron masses in the matrix; few fine faint grayish brown (10YR 5/2) iron depletions; moderately acid; clear smooth boundary.

Bt3—25 to 35 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak medium prismatic structure parting to moderate medium and coarse subangular blocky; firm; few very fine roots between peds; many distinct dark grayish brown (10YR 4/2) clay films on faces of peds; very few distinct very dark gray (10YR 3/1) and black (10YR 2/1) organic coats on faces of peds and in root channels and wormholes; few fine black (5YR 2/1) concretions of iron-manganese throughout the matrix; common fine distinct yellowish brown (10YR 5/6) iron masses in the matrix; common fine distinct grayish brown (10YR 5/2) iron depletions; slightly acid; clear smooth boundary.

Bt4—35 to 44 inches; mixed yellowish brown (10YR 5/8) and light olive brown (2.5Y 5/4) silty clay loam; weak coarse prismatic structure parting to moderate coarse subangular blocky; friable; few very fine roots between peds; few prominent dark grayish brown (10YR 4/2) and very dark gray (10YR 3/1) clay films on faces of peds; neutral; abrupt smooth boundary.

2Btg—44 to 50 inches; mixed light brownish gray (10YR 6/2) and strong brown (7.5YR 5/8) sandy loam; weak coarse subangular blocky structure; friable; very few distinct dark grayish brown (10YR 4/2) clay films on faces of peds; neutral; clear smooth boundary.

2BCg—50 to 65 inches; mixed dark grayish brown (10YR 4/2), strong brown (7.5YR 5/8), and yellowish brown (10YR 5/6) sandy loam with strata of loam 1 to 2 inches thick; weak coarse subangular blocky structure; friable; slightly alkaline; clear smooth boundary.

2C1—65 to 77 inches; brown (10YR 5/3), stratified sandy loam and sand; massive; friable; common medium prominent strong brown (7.5YR 5/8) and yellowish brown (10YR 5/8) iron masses in the matrix; common medium distinct light brownish gray (10YR 6/2) iron depletions; about 5 percent gravel; slightly alkaline; clear smooth boundary.

2C2—77 to 80 inches; mixed dark grayish brown (10YR 4/2) and brown (10YR 4/3), stratified coarse sandy loam and sand; massive; friable; about 5 percent gravel; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 18 inches
Thickness of the loess: 40 to 60 inches
Thickness of the solum: 50 to 65 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

Bt horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 or 5

Chroma—2 to 4
Texture—silty clay loam or silt loam

2Btg, 2BCg, 2Bg, 2Bt, and/or 2BC horizon:
Hue—7.5YR to 5Y
Value—4 to 6
Chroma—2 to 8
Texture—loam, silt loam, sandy loam, clay loam, or silty clay loam

2C horizon:
Hue—7.5YR to 5Y
Value—4 to 6
Chroma—2 to 8
Texture—loam or sandy loam with strata of loamy sand, sand, or silt loam

198A—Elburn silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Footslopes

Map Unit Composition

Elburn and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have less than 40 inches of loess over outwash
- Soils that have a seasonal high water table at a depth of less than 1 foot
- Soils that have a seasonal high water table at a depth of more than 3 feet
- Soils that have a surface layer less than 10 inches thick
- Soils that have either more sand or less sand in the lower part than the Elburn soil

Dissimilar soils:
- The well drained Parkway soils on summits and shoulders
- The well drained Plano soils on summits

Properties and Qualities of the Elburn Soil

Parent material: Loess over outwash
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Elco Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Oxyaquic Hapludalfs

Typical Pedon

Elco silt loam, 10 to 18 percent slopes, eroded; 1,900 feet west and 2,000 feet south of the northeast corner of sec. 20, T. 8 N., R. 2 W.; in Warren County, Illinois; USGS Roseville topographic quadrangle; lat. 40 degrees 40 minutes 11 seconds N. and long. 90 degrees 38 minutes 38 seconds W., NAD 27:

A—0 to 2 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; moderate fine granular structure; friable; many roots; neutral; clear smooth boundary.
E—2 to 9 inches; brown (10YR 5/3) and dark grayish brown (10YR 4/2) silt loam; moderate thin platy structure; very friable; many roots; common distinct very pale brown (10YR 7/3) silt coats on faces of peds; neutral; abrupt smooth boundary.
Bt1—9 to 18 inches; yellowish brown (10YR 5/4) silty clay loam; moderate fine subangular blocky structure; friable; many roots; common distinct dark yellowish brown (10YR 4/4) clay films; common distinct very pale brown (10YR 8/3) silt coats; dark grayish brown (10YR 4/2) krotovinas; moderately acid; clear smooth boundary.
Bt2—18 to 26 inches; yellowish brown (10YR 5/4) silty clay loam; weak medium prismatic structure parting to moderate fine subangular blocky; friable; many roots; common distinct dark yellowish brown (10YR 4/4) clay films; common distinct very pale

brown (10YR 8/3) silt coats; common distinct black (5YR 2/1) stains and concretions of manganese; strongly acid; clear smooth boundary.

2Bt3—26 to 32 inches; light yellowish brown (10YR 6/4) silty clay loam; common medium distinct strong brown (7.5YR 5/6) mottles; weak medium prismatic structure parting to moderate fine and medium subangular blocky; friable; few roots; common faint brown (10YR 5/3) clay films; common distinct very pale brown (10YR 8/3) silt coats; common distinct black (5YR 2/1) stains and concretions of manganese; strongly acid; clear smooth boundary.

2Bt4—32 to 45 inches; brown (10YR 5/3) clay; many medium distinct yellowish brown (10YR 5/6) mottles; strong medium and coarse prismatic and subangular blocky structure; firm; few roots; many distinct grayish brown (10YR 5/2) clay films; many distinct black (5YR 2/1) stains and concretions of manganese; strongly acid; clear smooth boundary.

2Btg—45 to 60 inches; grayish brown (2.5YR 5/2) clay; many medium and coarse distinct yellowish brown (10YR 5/6) mottles; moderate medium prismatic structure; firm; few roots; many distinct dark grayish brown (2.5Y 4/2) clay films; many distinct black (5YR 2/1) stains and concretions of manganese; moderately acid.

Range in Characteristics

Thickness of the loess: 20 to 40 inches
Thickness of the solum: More than 48 inches
Depth to paleosol till: Less than 60 inches

Ap or A horizon:
Hue—10YR
Value—3 to 5
Chroma—1 to 4
Texture—silt loam
Reaction—moderately acid to neutral

E horizon:
Hue—10YR
Value—4 or 5
Chroma—3 or 4
Texture—silt loam
Reaction—moderately acid to neutral

Bt horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—2 to 6
Texture—silty clay loam or silt loam
Reaction—strongly acid to slightly alkaline

2Bt or 2Btg horizon:
Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—3 to 6
Chroma—1 to 6
Texture—loam, clay loam, silty clay loam, silty clay, or clay
Reaction—strongly acid to slightly alkaline

119D2—Elco silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders and backslopes

Map Unit Composition

Elco and similar soils: 94 percent
Dissimilar soils: 6 percent

Minor Components

Similar soils:
• Soils that have less clay in the subsoil than the Elco soil
• Soils that have a lens of loamy or sandy drift above the underlying glacial till

Dissimilar soils:
• The somewhat poorly drained Atlas soils on backslopes
• The well drained Thebes soils on backslopes

Properties and Qualities of the Elco Soil

Parent material: Loess over a paleosol that formed in till
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Slow or moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: High
Depth and months of highest perched seasonal high water table: 2 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

119D3—Elco silty clay loam, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders and backslopes

Map Unit Composition

Elco and similar soils: 94 percent
Dissimilar soils: 6 percent

Minor Components

Similar soils:
• Soils that have less clay in the subsoil than the Elco soil
• Soils that have a lens of loamy or sandy drift above the underlying glacial till

Dissimilar soils:
• The somewhat poorly drained Atlas soils on backslopes
• The well drained Thebes soils on backslopes
• The somewhat poorly drained Radford soils in drainageways

Properties and Qualities of the Elco Soil

Parent material: Loess over a paleosol that formed in till
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Slow or moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: High
Depth and months of highest perched seasonal high water table: 2 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

957D3—Elco-Atlas silty clay loams, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Elco and similar soils: 45 percent
Atlas and similar soils: 40 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
• Soils that are less eroded and have a surface layer of silt loam

Dissimilar soils:
• The somewhat poorly drained Orion soils in drainageways
• The well drained Hickory and Thebes soils on backslopes

Properties and Qualities of the Elco Soil

Parent material: Loess over a paleosol that formed in till
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Slow or moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: High
Depth and months of highest perched seasonal high water table: 2 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete

Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Properties and Qualities of the Atlas Soil

Parent material: Paleosol that formed in till
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Impermeable
Permeability below a depth of 60 inches: Impermeable or very slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: High
Depth and months of highest perched seasonal high water table: 0.5 foot (January through May)
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: High
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Elco—4e; Atlas—6e
Prime farmland status: Not prime farmland
Hydric soil status: Elco—not hydric; Atlas—not hydric

Elkhart Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Argiudolls
Taxadjunct features: The Elkhart soil in map unit 567D2 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as a Mollic Hapludalf.

Typical Pedon (Official Series Description)

Elkhart silt loam, 5 to 10 percent slopes, at an elevation of 570 feet; 2,060 feet south and 1,248 feet west of the northeast corner of sec. 32, T. 19 N., R. 3 W.; in Logan County, Illinois; USGS Broadwell topographic quadrangle; lat. 40 degrees 03 minutes 26 seconds N. and long. 89 degrees 26 minutes 58 seconds W., NAD 27:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam, dark grayish brown (10YR 4/2) dry; weak fine and medium granular structure; friable; common very fine roots; slightly acid; abrupt smooth boundary.
A—8 to 10 inches; very dark grayish brown (10YR 3/2) silt loam, dark grayish brown (10YR 4/2) dry; moderate fine granular structure; friable; common very fine roots; slightly acid; clear smooth boundary.
BA—10 to 15 inches; dark brown (10YR 3/3) silty clay loam, brown (10YR 4/3) dry; moderate very fine and fine subangular blocky structure; friable; common very fine roots; common faint very dark grayish brown (10YR 3/2) organic coats on faces of peds; slightly acid; clear smooth boundary.
Bt1—15 to 22 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate fine subangular blocky structure; firm; few very fine roots; common distinct very dark grayish brown (10YR 3/2) organo-clay films on faces of peds; slightly acid; clear smooth boundary.
Bt2—22 to 28 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate fine and medium subangular blocky structure; firm; few very fine roots; few distinct dark brown (10YR 3/3) organo-clay films on faces of peds; slightly acid; clear smooth boundary.
BCt—28 to 31 inches; yellowish brown (10YR 5/4) silty clay loam; weak medium and coarse subangular blocky structure; friable; few very fine roots; few faint brown (10YR 4/3) clay films on faces of peds; few fine black (5YR 2.5/1) very weakly cemented concretions of manganese with diffuse boundaries in ped interiors; neutral; clear smooth boundary.
C—31 to 60 inches; yellowish brown (10YR 5/4) silt loam; massive; friable; few very fine roots in the upper 10 inches; common fine prominent strong brown (7.5YR 5/8) masses of iron in ped interiors; common medium distinct gray (10YR 6/1) iron depletions along root channels and pores; strongly effervescent; moderately alkaline.

Range in Characteristics:

Thickness of the mollic epipedon: 10 to 20 inches
Depth to the base of the argillic horizon: 20 to 40 inches
Depth to carbonates: 20 to 40 inches

Ap, A, or AB horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam
Reaction—moderately acid to slightly alkaline

BA or Bt horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 to 6
Texture—silty clay loam or silt loam
Reaction—moderately acid to neutral

BC horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—3 to 6
Texture—silt loam or silty clay loam
Reaction—slightly acid to moderately alkaline

C horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 6
Texture—silt or silt loam
Reaction—slightly alkaline or moderately alkaline

567D2—Elkhart silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Elkhart and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that are underlain by glacial till within a depth of 60 inches
- Soils that are not calcareous within a depth of 40 inches
- Soils that have a lighter colored surface layer than that of the Elkhart soil

Dissimilar soils:
- The somewhat poorly drained Radford soils on toeslopes

Properties and Qualities of the Elkhart Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Fayette Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Fayette silt loam, 10 to 18 percent slopes, eroded; 2,100 feet north and 1,700 feet west of the southeast corner of sec. 31, T. 12 N., R. 3 W.; in Warren County, Illinois; USGS Rozetta topographic quadrangle; lat. 40 degrees 59 minutes 13 seconds N. and long. 90 degrees 46 minutes 18 seconds W., NAD 27:

Ap—0 to 5 inches; mixed dark grayish brown (10YR 4/2) and yellowish brown (10YR 5/4) silt loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; common fine roots throughout; moderately acid; clear smooth boundary.

EB—5 to 9 inches; mixed brown (10YR 5/3) and yellowish brown (10YR 5/4) silt loam; weak medium platy structure parting to moderate fine subangular blocky; friable; common fine roots between peds; few faint dark yellowish brown (10YR 4/4) clay films on faces of peds; moderately acid; clear smooth boundary.

Bt1—9 to 13 inches; dark yellowish brown (10YR 4/4) silt loam; moderate fine and medium subangular blocky structure; friable; few fine roots between peds; common faint brown (10YR 4/3) clay films on faces of peds; moderately acid; clear smooth boundary.

Bt2—13 to 27 inches; yellowish brown (10YR 5/4) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots between peds; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; moderately acid; gradual smooth boundary.

Bt3—27 to 38 inches; yellowish brown (10YR 5/4) silty clay loam; weak coarse prismatic structure parting to moderate medium subangular blocky; friable; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; common distinct light gray (10YR 7/2) (dry) clay depletions on faces of peds; few prominent dark brown (7.5YR 3/2) accumulations of iron-manganese on faces of peds; moderately acid; gradual wavy boundary.

BC—38 to 55 inches; yellowish brown (10YR 5/4) silt loam; moderate medium and coarse subangular blocky structure; friable; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; common distinct light gray (10YR 7/2) (dry) clay depletions on faces of peds; few prominent dark brown (7.5YR 3/2) accumulations of iron-manganese on faces of peds; moderately acid; clear wavy boundary.

C—55 to 60 inches; yellowish brown (10YR 5/4) silt loam; massive; friable; few prominent dark brown (7.5YR 3/2) concretions of iron and manganese throughout the matrix; moderately acid.

Range in Characteristics

Thickness of the solum: 36 to 70 inches
Depth to free carbonates: More than 40 inches

Ap or A horizon:
Hue—10YR
Value—2 to 4
Chroma—1 to 3

E horizon (if it occurs):
Value—3 to 5
Chroma—1 to 4

Bt horizon:
Hue—10YR
Value—4 or 5
Chroma—3 to 6

BC and C horizons:
Hue—10YR
Value—4 or 5
Chroma—4 to 6
Texture—silt loam or silty clay loam

280B—Fayette silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits and shoulders

Map Unit Composition

Fayette and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Fayette soil
- Soils that have a seasonal high water table within a depth of 60 inches

Dissimilar soils:
- The somewhat poorly drained Atterberry, Clarksdale, Keomah, and Stronghurst soils on summits

Properties and Qualities of the Fayette Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

280C2—Fayette silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes and shoulders

Map Unit Composition

Fayette and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Fayette soil
- Soils that are calcareous within a depth of 40 inches

Dissimilar soils:
- The moderately well drained Elco soils on backslopes and footslopes

Properties and Qualities of the Fayette Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

280D2—Fayette silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Fayette and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that are calcareous within a depth of 40 inches
- Soils that formed in glacial till

Dissimilar soils:
- The moderately well drained Elco soils on backslopes and footslopes
- The well drained Marseilles soils on backslopes and footslopes

Properties and Qualities of the Fayette Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

280D3—Fayette silty clay loam, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Fayette and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that are calcareous within a depth of 40 inches
- Soils that formed in glacial till

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes

- The moderately well drained Elco soils on backslopes
- The well drained Marseilles soils on backslopes and footslopes
- The somewhat poorly drained Radford soils in drainageways

Properties and Qualities of the Fayette Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Fella Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Fluvaquentic Endoaquolls

Typical Pedon (Official Series Description)

Fella silty clay loam, 0 to 2 percent slopes, occasionally flooded, at an elevation of 619 feet; 890 feet south and 2,100 feet east of the northwest corner of sec. 16, T. 17 N., R. 6 E.; in Bureau County, Illinois; USGS Mineral topographic quadrangle; lat. 41 degrees 27 minutes 50 seconds N. and long. 89 degrees 48 minutes 41 seconds W., NAD 27:

Ap—0 to 7 inches; black (10YR 2/1) silty clay loam, very dark gray (10YR 3/1) dry; weak fine angular blocky structure parting to weak fine granular; friable; common fine and medium roots throughout; neutral; abrupt smooth boundary.

A—7 to 11 inches; black (10YR 2/1) silty clay loam, very dark gray (10YR 3/1) dry; weak medium angular blocky structure parting to moderate medium granular; firm; common fine and medium roots throughout; neutral; clear smooth boundary.

BA—11 to 20 inches; black (10YR 2/1) silty clay loam, very dark gray (10YR 3/1) dry; moderate medium angular blocky structure; firm; few fine prominent strong brown (7.5YR 4/6) iron masses with diffuse boundaries along linings in root channels; common fine roots between peds; neutral; clear smooth boundary.

Bg—20 to 29 inches; gray (5Y 5/1) silty clay loam; moderate medium subangular blocky structure; firm; few fine roots between peds; few fine prominent strong brown (7.5YR 4/6) iron masses along linings in root channels; common thick black (10YR 2/1) organic coats on faces of peds; few black krotovinas; neutral; clear wavy boundary.

Bkg1—29 to 37 inches; gray (5Y 5/1) silty clay loam; weak medium prismatic structure parting to moderate medium angular blocky; friable; few fine roots between peds; common medium calcium carbonate nodules; few very dark grayish brown (10YR 3/2) organic coats in root channels; many fine and medium prominent strong brown (7.5YR 4/6) iron masses with diffuse boundaries throughout the matrix and as accumulations along pore linings; violently effervescent; moderately alkaline; clear smooth boundary.

Bkg2—37 to 43 inches; gray (5Y 6/1) silty clay loam; weak coarse prismatic structure parting to weak medium angular blocky; friable; few fine roots between peds; common medium calcium carbonate nodules; few very dark grayish brown (10YR 3/2) organic coats in root channels; common medium prominent strong brown (7.5YR 4/6) iron masses with diffuse boundaries throughout the matrix; violently effervescent; moderately alkaline; clear smooth boundary.

2BCg—43 to 54 inches; gray (5Y 6/1) and dark grayish brown (10YR 4/2), stratified silt loam and very fine sandy loam; weak coarse prismatic structure; friable; few medium prominent strong brown (7.5YR 5/6) irregularly shaped iron masses with diffuse boundaries in the matrix; slightly effervescent; slightly alkaline; clear smooth boundary.

2Cg1—54 to 61 inches; yellowish brown (10YR 5/4) very fine sand; single grain; loose; common medium distinct yellowish brown (10YR 5/8) iron oxide masses in the matrix; few medium distinct dark grayish brown (10YR 4/2) iron depletions; slightly effervescent; slightly alkaline; clear smooth boundary.

2Cg2—61 to 80 inches; dark gray (5Y 4/1), stratified loamy fine sand and very fine sandy loam; massive; very friable; few medium prominent yellowish brown (10YR 5/8) iron masses in the matrix; layer of black (N 2/0) sapric material 2 inches thick at a depth of 61 to 63 inches; slightly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to free carbonates: 6 to 40 inches
Thickness of the solum: 30 to 60 inches

Ap or A horizon:
Hue—5YR to 2.5Y or N
Value—2 or 3
Chroma—0 to 2
Texture—silty clay loam or silt loam

Bg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—silty clay loam

2BC or 2Bg horizon (if it occurs):
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—stratified sandy loam, very fine sandy loam, loam, or silt loam

2Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 or 5
Chroma—1 to 4
Texture—stratified sand, fine sand, loamy sand, loamy fine sand, sandy loam, or fine sandy loam with thin strata of finer textures

8499A—Fella silty clay loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains

Map Unit Composition

Fella and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that are not calcareous within a depth of 60 inches
- Soils that have a surface layer more than 24 inches thick

Dissimilar soils:
- The poorly drained Muskego soils on flood plains
- The very poorly drained Palms soils on flood plains

Properties and Qualities of the Fella Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately rapid or rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 5 to 6 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Frequency of flooding: Occasional (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Gilford Series

Taxonomic classification: Coarse-loamy, mixed, superactive, mesic Typic Endoaquolls

Typical Pedon

Gilford fine sandy loam, 0 to 2 percent slopes; 1,840 feet north and 1,180 feet east of the southwest corner of sec. 14, T. 19 N., R. 4 E.; in Whiteside County, Illinois; USGS Erie topographic quadrangle; lat. 41 degrees 37 minutes 55 seconds N. and long. 90 degrees 00 minutes 42 seconds W., NAD 27:

Ap—0 to 8 inches; black (10YR 2/1) fine sandy loam, very dark gray (10YR 3/1) dry; weak fine subangular blocky structure parting to weak fine granular; friable; slightly acid; abrupt smooth boundary.

A—8 to 18 inches; black (10YR 2/1) fine sandy loam, very dark gray (10YR 3/1) dry; weak medium subangular blocky structure parting to weak medium and fine granular; friable; neutral; clear smooth boundary.

BA—18 to 22 inches; dark grayish brown (2.5Y 4/2) sandy loam; weak medium and fine subangular blocky structure; very friable; many distinct very dark gray (10YR 3/1) organic coats on faces of peds; few fine prominent yellowish brown (10YR 5/8) iron masses in the matrix; neutral; clear smooth boundary.

Bg—22 to 32 inches; grayish brown (2.5Y 5/2) sandy loam; weak medium subangular blocky structure; very friable; very dark gray (10YR 3/1) krotovinas between depths of 29 and 32 inches; few fine prominent yellowish brown (10YR 5/8) iron masses in the matrix; neutral; abrupt wavy boundary.

2Cg—32 to 60 inches; light brownish gray (10YR 6/2) sand; single grain; loose; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 22 inches
Thickness of the solum: 20 to 40 inches

Ap or A horizon:
Hue—10YR or N
Value—2 or 3
Chroma—0 to 2
Texture—loam, sandy loam, fine sandy loam, or the mucky analogs of these textures

Bg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—fine sandy loam or sandy loam

2Cg horizon:
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—1 to 3
Texture—loamy sand, sand, coarse sand, or fine sand

201A—Gilford fine sandy loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Toeslopes

Map Unit Composition

Gilford and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a surface layer more than 24 inches thick
- Soils that have more sand and less clay than the Gilford soil
- Soils that have more clay and less sand than the Gilford soil
- Soils that are somewhat poorly drained

Dissimilar soils:
- The poorly drained Adrian soils in positions similar to those of the Gilford soil
- The poorly drained Hooppole soils on summits

Properties and Qualities of the Gilford Soil

Parent material: Outwash
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Greenbush Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Mollic Hapludalfs

Typical Pedon (Official Series Description)

Greenbush silt loam, 2 to 5 percent slopes, at an elevation of 700 feet; 1,500 feet west and 1,500 feet north of the southeast corner of sec. 18, T. 8 N., R. 1 W.; in Warren County, Illinois; USGS Greenbush topographic quadrangle; lat. 40 degrees 40 minutes 40 seconds N. and long. 90 degrees 32 minutes 45 seconds W., NAD 27:

Ap—0 to 6 inches; very dark gray (10YR 3/1) silt loam, gray (10YR 5/1) dry; moderate fine granular structure; friable; slightly acid; abrupt smooth boundary.

E—6 to 10 inches; dark grayish brown (10YR 4/2) silt loam; weak thin platy structure; friable; common faint very dark gray (10YR 3/1) organic coats on faces of peds; moderately acid; abrupt smooth boundary.

BE—10 to 17 inches; brown (10YR 4/3) silt loam; moderate medium platy structure parting to weak fine subangular blocky; friable; few distinct very dark gray (10YR 3/1) organic coats and common distinct gray (10YR 6/1) silt coats on faces of peds; moderately acid; clear smooth boundary.

Bt1—17 to 29 inches; yellowish brown (10YR 5/4) silty clay loam; weak medium prismatic structure parting to moderate fine and medium angular blocky; friable; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; common distinct gray (10YR 6/1) silt coats on faces of peds; strongly acid; gradual smooth boundary.

Bt2—29 to 38 inches; brown (10YR 5/3) silty clay loam; weak medium prismatic structure parting to moderate fine angular blocky; friable; common faint brown (10YR 4/3) clay films on faces of peds; many faint light gray (10YR 7/2) silt coats on faces of peds; common medium distinct yellowish brown (10YR 5/6) masses of iron; common medium prominent gray (5Y 6/1) iron depletions within peds; common prominent black (7.5YR 2/0) manganese oxide stains; strongly acid; gradual wavy boundary.

Bt3—38 to 53 inches; brown (10YR 5/3) silty clay loam; weak medium prismatic structure parting to moderate fine angular blocky; friable; common faint brown (10YR 4/3) clay films on faces of peds; many distinct light gray (10YR 7/2) silt coats on faces of peds; common medium distinct yellowish brown (10YR 5/6) masses of iron; common medium prominent gray (5Y 6/1) iron depletions within peds; common prominent black (7.5YR 2/0) manganese oxide stains; strongly acid; gradual wavy boundary.

BCt—53 to 75 inches; brown (10YR 5/3) and light olive gray (5Y 6/2) silt loam; weak medium and coarse prismatic structure parting to weak fine and medium angular blocky; friable; few faint brown (10YR 4/3) clay films on faces of peds; few faint light gray (10YR 7/2) silt coats on faces of peds; common medium distinct yellowish brown (10YR 5/6) masses of iron within peds; common prominent black (7.5YR 2/0) manganese oxide stains; moderately acid; gradual wavy boundary.

C—75 to 100 inches; yellowish brown (10YR 5/4) and light olive gray (5Y 6/2) silt loam; massive; friable; many medium distinct light brownish gray (10YR 6/2) iron depletions within peds; many prominent black (7.5YR 2/0) manganese oxide stains; moderately acid.

Range in Characteristics

Depth to carbonates: More than 60 inches
Depth to the base of the argillic horizon: 36 to 70 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2

E horizon:
Hue—10YR
Value—3 to 5
Chroma—2 or 3

Bt horizon:
Hue—10YR
Value—4 or 5
Chroma—3 to 6
Texture—silty clay loam

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

675A—Greenbush silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Greenbush and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a lighter colored surface layer than that of the Greenbush soil

• Soils that have a surface layer more than 10 inches thick

Dissimilar soils:
• The somewhat poorly drained Atterberry and Clarksdale soils on summits

Properties and Qualities of the Greenbush Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

675B—Greenbush silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Shoulders and summits

Map Unit Composition

Greenbush and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
• Soils that have a lighter colored surface layer than that of the Greenbush soil
• Soils that have a surface layer more than 10 inches thick

Dissimilar soils:
• The somewhat poorly drained Atterberry and Clarksdale soils on summits

Properties and Qualities of the Greenbush Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

675C2—Greenbush silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Greenbush and similar soils: 91 percent
Dissimilar soils: 9 percent

Minor Components

Similar soils:
• Soils that have a lighter colored surface layer than that of the Greenbush soil
• Soils that have a surface layer more than 10 inches thick
• Soils that are calcareous within a depth of 40 inches
• Soils that are underlain by glacial till within a depth of 60 inches

Dissimilar soils:
• The somewhat poorly drained Atterberry soils on summits

Properties and Qualities of the Greenbush Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Harpster Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Calciaquolls

Typical Pedon

Harpster silty clay loam, 0 to 2 percent slopes, at an elevation of 635 feet; 1,452 feet south and 990 feet west of the northeast corner of sec. 8, T. 16 N., R. 6 E.; in Bureau County, Illinois; USGS Mineral topographic quadrangle; lat. 41 degrees 23 minutes 23 seconds N. and long. 89 degrees 49 minutes 22 seconds W., NAD 27:

Apk—0 to 8 inches; black (N 2.5/1) silty clay loam, very dark gray (N 3/0) dry; moderate medium granular structure; friable; few fine roots; violently effervescent; moderately alkaline; abrupt smooth boundary.

Ak—8 to 18 inches; black (N 2.5/1) silty clay loam, very dark gray (N 3/0) dry; moderate fine subangular blocky structure; friable; few fine roots; violently effervescent; moderately alkaline; clear smooth boundary.

Bkg1—18 to 26 inches; dark gray (10YR 4/1) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; many prominent very dark gray (N 3/0) organic stains; violently effervescent; moderately alkaline; clear smooth boundary.

Bkg2—26 to 32 inches; dark gray (5Y 4/1) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; common fine distinct strong brown (7.5YR 5/6) iron accumulations in the matrix; violently effervescent; moderately alkaline; clear smooth boundary.

Ckg—32 to 60 inches; gray (10YR 5/1) silty clay loam; massive; friable; many fine distinct strong brown (7.5YR 5/6) iron accumulations in the matrix; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches
Thickness of the solum: 26 to 46 inches

Ak horizon:
Hue—10YR to 5Y or N
Value—2 or 3
Chroma—0 or 1

Bkg horizon:
Hue—10YR to 5Y or N
Value—3 to 6
Chroma—0 to 2

Cg horizon:
Hue—7.5YR to 5Y
Value—4 to 6
Chroma—1 to 8

67A—Harpster silty clay loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines

Map Unit Composition

Harpster and similar soils: 92 percent
Dissimilar soils: 8 percent

Minor Components

Similar soils:
• Soils that have a dark surface layer more than 24 inches thick

• Soils that have more sand and less clay than the Harpster soil

Dissimilar soils:
• The well drained Plano and Proctor soils on summits

Properties and Qualities of the Harpster Soil

Parent material: Calcareous loess
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2.0 to 5.5 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 0.5 foot (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Hickory Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Hapludalfs

Typical Pedon

Hickory silt loam, 18 to 35 percent slopes; 320 feet south and 2,520 feet west of the northeast corner of sec. 18, T. 15 N., R. 6 E.; in Bureau County, Illinois; USGS Neponset topographic quadrangle; lat. 41 degrees 19 minutes 59 seconds N. and long. 89 degrees 50 minutes 50 seconds W., NAD 27:

A—0 to 4 inches; dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; moderate fine granular structure; friable; common fine and medium roots throughout; 1 percent gravel; slightly acid; clear smooth boundary.

Bt1—4 to 13 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak fine subangular blocky structure; friable; common fine roots between peds; common prominent brown (7.5YR 4/4) clay films on faces of peds; 2 percent gravel; few fine rounded black (N 2/0) concretions of iron-manganese in the matrix; slightly acid; clear smooth boundary.

2Bt2—13 to 23 inches; dark yellowish brown (10YR 4/4) clay loam; moderate fine and medium subangular blocky structure; friable; common fine roots between peds; many distinct brown (7.5YR 4/4) clay films on faces of peds; 5 percent gravel; few fine rounded black (N 2/0) concretions of iron-manganese in the matrix; neutral; clear smooth boundary.

2Bt3—23 to 31 inches; dark yellowish brown (10YR 4/4) clay loam; moderate medium subangular blocky structure; firm; few very fine and fine roots between peds; many distinct brown (7.5YR 4/4) clay films on faces of peds; 3 percent gravel; few fine rounded black (N 2/0) concretions of iron-manganese in the matrix; neutral; gradual wavy boundary.

2Bt4—31 to 40 inches; dark yellowish brown (10YR 4/4) clay loam; weak medium and coarse subangular blocky structure; firm; few very fine and fine roots between peds; common distinct brown (7.5YR 4/4) clay films on faces of peds; few fine rounded black (N 2/0) concretions of iron-manganese in the matrix; 5 percent gravel; neutral; clear smooth boundary.

2BC—40 to 54 inches; brown (7.5YR 4/4) clay loam; weak coarse subangular blocky structure; firm; few distinct dark reddish brown (5YR 3/3) clay films on faces of peds; few fine rounded black (N 2/0) concretions of iron-manganese in the matrix; 5 percent gravel; slightly acid; clear smooth boundary.

2C—54 to 60 inches; yellowish brown (10YR 5/4) clay loam; massive; firm; common distinct brown (7.5YR 4/4) clay films on rocks and along pores; few medium faint yellowish brown (10YR 5/6) iron masses in the matrix; 4 percent gravel; effervescent; moderately alkaline.

Range in Characteristics

Thickness of the loess: Less than 20 inches
Depth to the argillic horizon: More than 40 inches
Depth to carbonates: More than 40 inches
Thickness of the solum: Less than 80 inches

Ap or A horizon:
Hue—7.5YR or 10YR
Value—2 to 4
Chroma—2 or 3
Texture—silt loam or loam

E horizon (if it occurs):
Value—4 to 6
Chroma—2 to 4
Texture—silt loam or loam

Bt horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—3 to 6
Texture—clay loam, silty clay loam, loam, or gravelly clay loam

CB or C horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—5 to 7
Chroma—1 to 8
Texture—loam, clay loam, or sandy loam or the gravelly analogs of these textures

8D2—Hickory silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Hickory and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are calcareous within a depth of 40 inches
- Soils that have a surface layer of clay loam and that are more eroded than the Hickory soil
- Soils that have less sand than the Hickory soil
- Soils that have sandy textures below a depth of 40 inches

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes and shoulders
- The well drained Marseilles soils on backslopes and footslopes

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

8D3—Hickory clay loam, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Hickory and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are calcareous within a depth of 40 inches
- Soils that have less clay in the surface layer than the Hickory soil
- Soils that have less sand than the Hickory soil
- Soils that have sandy textures below a depth of 40 inches

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The well drained Marseilles soils on backslopes and footslopes

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.4 inches to a depth of 60 inches

Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

8F—Hickory silt loam, 18 to 35 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Hickory and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are calcareous within a depth of 40 inches
- Soils that contain more sand in the surface layer than the Hickory soil
- Soils that have less sand than the Hickory soil

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The well drained Marseilles soils on footslopes

Properties and Qualities of the Hickory Soil

Parent material: Till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

8F2—Hickory silt loam, 18 to 35 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Hickory and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that are calcareous within a depth of 40 inches
- Soils that contain more sand in the surface layer than the Hickory soil
- Soils that have less sand than the Hickory soil

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The well drained Marseilles soils on footslopes

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: High

Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

946D2—Hickory-Atlas silt loams, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Hickory and similar soils: 50 percent
Atlas and similar soils: 35 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that have more than 20 inches of loess over the glacial till
- Soils that have more than 27 percent clay in the surface layer

Dissimilar soils:
- The well drained Marseilles soils on backslopes
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Properties and Qualities of the Atlas Soil

Parent material: Paleosol that formed in till
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Impermeable
Permeability below a depth of 60 inches: Slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: High
Depth and months of highest perched seasonal high water table: 0.5 foot (January through May)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Hickory—3e; Atlas—6e
Prime farmland status: Not prime farmland
Hydric soil status: Hickory—not hydric; Atlas—not hydric

946D3—Hickory-Atlas complex, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Hickory and similar soils: 50 percent
Atlas and similar soils: 35 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that have more than 20 inches of loess over the glacial till
- Soils that have more than 27 percent clay in the surface layer

Dissimilar soils:
- The well drained Marseilles soils on backslopes
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Properties and Qualities of the Atlas Soil

Parent material: Paleosol that formed in till
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Impermeable
Permeability below a depth of 60 inches: Slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: High
Depth and months of highest perched seasonal high water table: 0.5 foot (January through May)
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: Hickory—4e; Atlas—6e
Prime farmland status: Not prime farmland
Hydric soil status: Hickory—not hydric; Atlas—not hydric

Hoopeston Series

Taxonomic classification: Coarse-loamy, mixed, superactive, mesic Aquic Hapludolls

Typical Pedon

Hoopeston sandy loam, 0 to 2 percent slopes; 2,530 feet south and 1,060 feet east of the northwest corner of sec. 14, T. 19 N., R. 4 E.; in Whiteside County, Illinois; USGS Erie topographic quadrangle; lat. 41 degrees 38 minutes 04 seconds N. and long. 90 degrees 00 minutes 45 seconds W., NAD 27:

Ap—0 to 10 inches; black (10YR 2/1) sandy loam, dark gray (10YR 4/1) dry; weak fine subangular blocky structure parting to weak fine granular; very friable; common very fine roots throughout; neutral; clear smooth boundary.

A—10 to 14 inches; very dark grayish brown (10YR 3/2) sandy loam, grayish brown (10YR 5/2) dry; weak medium and fine subangular blocky structure; very friable; common very fine roots throughout; common faint very dark brown (10YR 2/2) organic coats on faces of peds; neutral; clear smooth boundary.

Bw1—14 to 21 inches; brown (10YR 5/3) sandy loam; weak medium subangular blocky structure; very friable; few very fine roots between peds; few distinct very dark grayish brown (10YR 3/2) organic coats on faces of peds and in root channels; common fine faint dark grayish brown (10YR 4/2) iron depletions and common fine distinct yellowish brown (10YR 5/6) iron masses in the matrix; neutral; clear smooth boundary.

Bw2—21 to 38 inches; brown (10YR 5/3) sandy loam; weak coarse subangular blocky structure; very friable; few very fine roots between peds; common fine faint grayish brown (10YR 5/2) iron depletions and common fine distinct yellowish brown (10YR 5/8) iron masses in the matrix; slightly acid; abrupt smooth boundary.

C—38 to 60 inches; pale brown (10YR 6/3) sand; single grain; loose; common fine faint light brownish gray (10YR 6/2) iron depletions and common fine prominent yellowish brown (10YR 5/8) iron masses in the matrix; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to free carbonates: More than 40 inches
Thickness of the solum: 20 to 54 inches

Ap or A horizon:
Hue—7.5YR or 10YR
Value—2 or 3
Chroma—1 to 3
Texture—sandy loam, fine sandy loam, or loam

Bw, Bt, Bg, and/or Btg horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—1 to 6
Texture—sandy loam or fine sandy loam; strata of loamy sand, loamy fine sand, loam, sandy clay loam, silt loam, or sand in some pedons

Cg and/or C horizon:
Hue—7.5YR to 5Y
Value—3 to 6
Chroma—1 to 8
Texture—loamy sand, sand, loamy fine sand, or fine sand; loamy strata in some pedons

172A—Hoopeston sandy loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits

Map Unit Composition

Hoopeston and similar soils: 92 percent
Dissimilar soils: 8 percent

Minor Components

Similar soils:
- Soils that contain more clay and less sand than the Hoopeston soil
- Soils that contain less clay and more sand than the Hoopeston soil

Dissimilar soils:
- The well drained Dickinson soils on summits
- The poorly drained Gilford soils on toeslopes

Properties and Qualities of the Hoopeston Soil

Parent material: Outwash
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderately high

Interpretive Groups

Land capability classification: 2s
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Hooppole Series

Taxonomic classification: Fine-loamy, mixed, superactive, calcareous, mesic Typic Endoaquolls

Typical Pedon (Official Series Description)

Hooppole loam, 0 to 2 percent slopes; 470 feet south and 1,940 feet west of the northeast corner of sec. 18, T. 17 N., R. 6 E.; in Bureau County, Illinois; USGS Mineral topographic quadrangle; lat. 41 degrees 27 minutes 55 seconds N. and long. 89 degrees 50 minutes 46 seconds W., NAD 27:

Apk—0 to 7 inches; black (N 2/0) loam, very dark gray (10YR 3/1) dry; moderate medium granular structure; friable; common fine roots throughout; violently effervescent; slightly alkaline; abrupt smooth boundary.

Ak—7 to 12 inches; black (N 2/0) loam, black (10YR 2/1) dry; moderate medium subangular blocky structure; friable; few fine roots throughout; violently effervescent; slightly alkaline; clear smooth boundary.

A—12 to 17 inches; black (10YR 2/1) loam, very dark grayish brown (10YR 3/2) dry; moderate fine subangular blocky structure parting to moderate medium granular; friable; few fine roots throughout; few fine distinct dark grayish brown (2.5Y 4/2) iron depletions; slightly effervescent; slightly alkaline; clear smooth boundary.

BA—17 to 22 inches; very dark grayish brown (2.5Y 3/2) loam, dark grayish brown (2.5Y 4/2) dry; moderate fine subangular blocky structure; friable; few fine roots between peds; black (10YR 2/1) loamy krotovina; light brownish gray (10YR 6/2) sandy krotovina; few fine faint grayish brown (2.5Y 5/2) iron depletions; few fine prominent yellowish brown (10YR 5/6) iron masses in the matrix;

slightly effervescent; slightly alkaline; clear smooth boundary.

Bg1—22 to 30 inches; dark grayish brown (2.5Y 4/2) loam; moderate medium subangular blocky structure; friable; few fine roots between peds; black (10YR 2/1) loamy krotovina; light brownish gray (10YR 6/2) sandy krotovina; common very dark gray (10YR 3/1) organic coats on faces of peds; common fine prominent strong brown (7.5YR 5/6) iron masses in the matrix; few fine faint grayish brown (2.5Y 5/2) iron depletions; slightly effervescent; slightly alkaline; clear smooth boundary.

Bg2—30 to 38 inches; olive gray (5Y 5/2) loam; moderate medium subangular blocky structure; friable; few fine roots between peds; very dark grayish brown (10YR 3/2) loamy krotovina; common dark gray (5Y 4/1) organic coats on faces of peds; common fine prominent strong brown (7.5YR 5/6) iron masses in the matrix; few fine faint gray (5Y 6/1) iron depletions; strongly effervescent; slightly alkaline; clear smooth boundary.

BCg—38 to 44 inches; dark grayish brown (2.5Y 4/2) sandy loam; weak medium subangular blocky structure; friable; black (10YR 2/1) loamy krotovina; common distinct dark gray (5Y 4/1) organic coats on faces of peds; few fine prominent strong brown (7.5YR 5/6) iron masses in the matrix; few fine distinct gray (5Y 5/1) iron depletions; slightly effervescent; slightly alkaline; clear smooth boundary.

2Cg—44 to 60 inches; very dark gray (5Y 3/1) and grayish brown (2.5Y 5/2) sand; single grain; loose; few fine prominent yellowish brown (10YR 5/6) iron masses in the matrix; slightly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to free carbonates: Less than 10 inches
Thickness of the solum: 30 to 50 inches

Ap or A horizon:
Hue—10YR, 2.5Y, or N
Value—2 or 3
Chroma—0 or 1
Texture—loam, silt loam, clay loam, or silty clay loam

Bg or BCg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—loam, silt loam, clay loam, sandy clay loam, silty clay loam, or sandy loam

2Cg horizon:
Hue—7.5YR to 5Y
Value—3 to 6
Chroma—1 to 4
Texture—sand or loamy sand

488A—Hooppole loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains

Map Unit Composition

Hooppole and similar soils: 98 percent
Dissimilar soils: 2 percent

Minor Components

Similar soils:
- Soils that contain more clay and less sand than the Hooppole soil
- Soils that are not calcareous
- Soils that are sandy within a depth of 40 inches

Dissimilar soils:
- The somewhat poorly drained La Hogue soils on summits
- The very poorly drained Palms soils on toeslopes

Properties and Qualities of the Hooppole Soil

Parent material: Outwash
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 8 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Ipava Series

Taxonomic classification: Fine, smectitic, mesic Aquic Argiudolls

Typical Pedon (Official Series Description)

Ipava silt loam, 0 to 2 percent slopes, at an elevation of 804 feet; 2,046 feet west and 594 feet north of the southeast corner of sec. 25, T. 13 N., R. 2 E.; in Knox County, Illinois; USGS Oneida topographic quadrangle; lat. 41 degrees 04 minutes 40 seconds N. and long. 90 degrees 13 minutes 03 seconds W., NAD 27:

Ap—0 to 10 inches; black (10YR 2/1) silt loam, dark gray (10YR 4/1) dry; moderate fine and medium subangular blocky structure; friable; moderately acid; abrupt smooth boundary.

A—10 to 18 inches; very dark grayish brown (10YR 3/2) silty clay loam, grayish brown (10YR 5/2) dry; weak fine and medium subangular blocky structure; friable; common distinct black (10YR 2/1) organic coats on faces of peds; moderately acid; clear smooth boundary.

BA—18 to 24 inches; brown (10YR 4/3) silty clay loam; moderate fine and medium subangular blocky structure; friable; common distinct very dark gray (10YR 3/1) organic coats on faces of peds; few fine distinct light brownish gray (2.5Y 6/2) iron depletions and few distinct yellowish brown (10YR 5/6) masses of iron in the matrix; moderately acid; clear smooth boundary.

Btg1—24 to 31 inches; dark grayish brown (10YR 4/2) silty clay; moderate fine prismatic structure parting to moderate fine subangular blocky; friable; common faint dark gray (10YR 4/1) clay films on faces of peds; few fine distinct light brownish gray (2.5Y 6/2) iron depletions in the matrix and common fine prominent yellowish brown (10YR 5/8) masses of iron in the matrix; slightly acid; clear smooth boundary.

Btg2—31 to 37 inches; grayish brown (2.5Y 5/2) silty clay loam; moderate medium prismatic structure parting to moderate medium angular blocky; friable; common distinct dark gray (10YR 4/1) clay films on faces of peds; common fine faint light brownish gray (2.5Y 6/2) iron depletions and common medium prominent strong brown (7.5YR 5/8) masses of iron in the matrix; few fine black (7.5YR 2.5/1) very weakly cemented iron and manganese concretions throughout; few fine black (7.5YR 2.5/1) iron and manganese stains on faces of peds; slightly alkaline; gradual smooth boundary.

BCg—37 to 50 inches; grayish brown (2.5Y 5/2) silty clay loam; moderate medium prismatic structure parting to moderate medium angular blocky; friable; few distinct very dark grayish brown (10YR 3/2) organo-clay films occurring as linings in pores and on a few vertical faces of peds; common fine faint light brownish gray (2.5Y 6/2) iron depletions and common fine prominent strong brown (7.5YR 5/8) masses of iron in the matrix; few fine black (7.5YR 2.5/1) very weakly cemented iron and manganese concretions throughout; common fine black (7.5YR 2.5/1) iron and manganese stains on faces of peds; slightly alkaline; clear smooth boundary.

Cg—50 to 60 inches; light brownish gray (2.5Y 6/2) silt loam; massive; friable; few faint very dark grayish brown (10YR 3/2) organo-clay films occurring as linings in pores; common fine prominent yellowish brown (10YR 5/8) masses of iron in the matrix; few fine black (7.5YR 2.5/1) very weakly cemented iron and manganese concretions throughout; few fine black (7.5YR 2.5/1) iron and manganese stains on faces of vertical cracks; moderately alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to the base of the argillic horizon: 35 to 55 inches
Depth to carbonates: More than 40 inches

Ap, A, or AB horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam or silty clay loam
Reaction—moderately acid to neutral

BA, Bt, Btg, BC, or BCg horizon:
Hue—10YR or 2.5Y
Value—3 to 6
Chroma—2 to 4
Texture—silty clay loam or silty clay
Reaction—moderately acid to slightly alkaline

Cg or C horizon:
Hue—10YR or 2.5Y
Value—5 or 6
Chroma—1 to 4
Reaction—slightly acid to moderately alkaline

43A—Ipava silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Ipava and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a surface layer less than 10 inches thick
- Soils that have a seasonal high water table at a depth of more than 2 feet

Dissimilar soils:
- The poorly drained Denny soils in depressions
- The well drained Osco soils on summits
- The poorly drained Sable soils on summits

Properties and Qualities of the Ipava Soil

Parent material: Loess
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 5 percent
Shrink-swell potential: High
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Joy Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aquic Hapludolls

Typical Pedon

Joy silt loam, 0 to 2 percent slopes; 1,900 feet east and 2,600 feet north of the southwest corner of sec. 26, T. 18 N., R. 3 E.; in Whiteside County, Illinois; USGS Spring Hill topographic quadrangle; lat. 41 degrees 31 minutes 01 second N. and long. 90 degrees 06 minutes 59 seconds W., NAD 27:

Ap—0 to 5 inches; black (10YR 2/1) silt loam, dark grayish brown (10YR 4/2) dry; moderate medium granular structure; friable; moderately acid; abrupt smooth boundary.

A1—5 to 13 inches; very dark gray (10YR 3/1) silt loam, dark grayish brown (10YR 4/2) dry; weak fine subangular blocky structure parting to moderate medium granular; friable; slightly acid; clear smooth boundary.

A2—13 to 17 inches; very dark grayish brown (10YR 3/2) silt loam; moderate fine subangular blocky structure parting to moderate medium granular; friable; neutral; clear smooth boundary.

Bt1—17 to 21 inches; brown (10YR 4/3) silt loam; moderate medium and fine subangular blocky structure; friable; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; neutral; clear smooth boundary.

Bt2—21 to 27 inches; mixed grayish brown (10YR 5/2) and brown (10YR 5/3) silty clay loam; moderate medium and fine subangular blocky structure; friable; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; few prominent black (N 2/0) coats of iron-manganese on faces of peds; common medium distinct yellowish brown (10YR 5/6) iron masses in the matrix; neutral; clear smooth boundary.

Bt3—27 to 34 inches; yellowish brown (10YR 5/4) silt loam; moderate fine and medium subangular blocky structure; friable; common faint brown (10YR 5/3) clay films on faces of peds; few prominent black (N 2/0) coats of iron-manganese on faces of peds; common fine distinct light brownish gray (10YR 6/2) iron depletions and yellowish brown (10YR 5/6) iron masses in the matrix; neutral; clear smooth boundary.

Bt4—34 to 49 inches; mixed light brownish gray (2.5Y 6/2) and yellowish brown (10YR 5/6) silt loam; weak fine prismatic structure parting to weak fine and medium subangular blocky; friable; few faint grayish brown (10YR 5/2) clay films on faces of peds; few prominent black (N 2/0) coats of iron-manganese on faces of peds; neutral; gradual smooth boundary.

Cg—49 to 60 inches; light brownish gray (2.5Y 6/2) silt loam; massive; friable; common prominent black (N 2/0) coats of iron-manganese along cleavage planes; many medium prominent yellowish brown (10YR 5/6) iron masses in the matrix; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to free carbonates: More than 40 inches
Thickness of the solum: 36 to 60 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam

Bw, Bg, or Bt horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—2 to 6
Texture—silt loam or silty clay loam

C or Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 7
Chroma—1 to 4
Texture—silt loam, very fine sandy loam, or loam

275A—Joy silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Joy and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that are moderately well drained

Dissimilar soils:
- The poorly drained Sable soils on toeslopes

Properties and Qualities of the Joy Soil

Parent material: Loess
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Joyce Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aquic Hapludolls

Typical Pedon (Official Series Description)

Joyce silt loam, 0 to 2 percent slopes, at an elevation of 630 feet; 180 feet south and 1,640 feet west of the northeast corner of sec. 33, T. 19 N., R. 6 E.; in Whiteside County, Illinois; USGS Yorktown topographic quadrangle; lat. 41 degrees 35 minutes 20 seconds N. and long. 89 degrees 48 minutes 30 seconds W., NAD 27:

Ap—0 to 9 inches; black (10YR 2/1) silt loam, dark gray (10YR 4/1) dry; moderate fine subangular blocky structure parting to moderate fine granular; friable; common very fine roots throughout; slightly acid; abrupt smooth boundary.

A—9 to 15 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine and medium subangular blocky structure; friable; common very fine roots throughout; slightly acid; clear smooth boundary.

AB—15 to 20 inches; dark brown (10YR 3/3) silt loam, grayish brown (10YR 5/2) dry; moderate fine and medium subangular blocky structure; friable; common very fine roots between peds; common distinct very dark gray (10YR 3/1) organic coats and few distinct gray (10YR 6/1) (dry) clay depletions on faces of peds; slightly acid; clear smooth boundary.

Bt1—20 to 28 inches; brown (10YR 4/3) silt loam; moderate fine and medium angular blocky structure; friable; few distinct very dark grayish brown (10YR 3/2) organic coats and many faint dark grayish brown (10YR 4/2) clay films on faces of peds; few distinct gray (10YR 6/1) (dry) clay depletions on faces of peds; few fine faint light brownish gray (10YR 6/2) redoximorphic depletions; few fine prominent yellowish brown (10YR 5/8) iron masses in the matrix; moderately acid; clear smooth boundary.

Bt2—28 to 37 inches; brown (10YR 5/3) silt loam; weak medium prismatic structure parting to weak coarse subangular blocky; friable; common faint dark grayish brown (10YR 4/2) clay films on faces of peds; common fine distinct yellowish brown (10YR 5/8) iron masses in the matrix; many medium distinct light brownish gray (10YR 6/2) iron depletions; moderately acid; clear smooth boundary.

Btg—37 to 44 inches; light brownish gray (10YR 6/2) silt loam; weak medium prismatic structure; friable; few faint grayish brown (10YR 5/2) clay films on faces of peds; few fine prominent yellowish brown (10YR 5/8), few fine distinct yellowish brown (10YR 5/4), and few fine faint pale brown (10YR 6/3) iron masses in the matrix; moderately acid; abrupt smooth boundary.

2BC—44 to 47 inches; brown (10YR 5/3) loam; weak medium prismatic structure; friable; few faint grayish brown (10YR 5/2) clay films on faces of peds; common fine distinct yellowish brown (10YR 5/8) iron masses in the matrix; few fine faint light brownish gray (10YR 6/2) iron depletions; moderately acid; abrupt wavy boundary.

2C—47 to 60 inches; yellowish brown (10YR 5/4) loamy sand; single grain; loose; common fine faint pale brown (10YR 6/3) and common fine distinct yellowish brown (10YR 5/8) iron masses in the matrix; moderately acid.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the loess: 35 to 55 inches
Depth to free carbonates: More than 48 inches
Thickness of the solum: 35 to 55 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam

Bt, Btg, and/or Bg horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—2 to 4
Texture—silt loam

2Bg or 2BC horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—2 to 4
Texture—loam or sandy loam with thin strata of silt loam, clay loam, loamy sand, or sand

2C horizon:
Hue—10YR or 2.5Y
Value—5 or 6
Chroma—2 to 4
Texture—sand, fine sand, loamy sand, or loamy fine sand

487A—Joyce silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Footslopes

Map Unit Composition

Joyce and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that have a surface layer more than 24 inches thick
- Soils that have less than 40 inches of loess overlying sand
- Soils that are poorly drained

Dissimilar soils:
- The poorly drained Harpster soils on toeslopes
- The well drained Richwood and Waukegan soils on summits

Properties and Qualities of the Joyce Soil

Parent material: Loess over outwash
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent

Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Keltner Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Oxyaquic Argiudolls

Typical Pedon (Official Series Description)

Keltner silt loam, 2 to 5 percent slopes; 380 feet east and 240 feet north of the center of sec. 32, T. 26 N., R. 7 E.; in Stephenson County, Illinois; USGS Shannon topographic quadrangle; lat. 42 degrees 12 minutes 23 seconds N. and long. 89 degrees 42 minutes 59 seconds W., NAD 27:

Ap—0 to 8 inches; black (10YR 2/1) silt loam, very dark gray (10YR 3/1) dry; moderate medium granular structure; friable; light gray (10YR 7/2) (dry) silt coats; neutral; abrupt smooth boundary.

A—8 to 13 inches; very dark grayish brown (10YR 3/2) silt loam, dark grayish brown (10YR 4/2) dry; weak fine granular structure; friable; moderately acid; clear smooth boundary.

Bt1—13 to 20 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak fine subangular blocky structure; firm; common distinct brown (10YR 4/3) clay films on faces of peds; moderately acid; clear smooth boundary.

Bt2—20 to 27 inches; yellowish brown (10YR 5/4) silty clay loam; moderate fine and medium subangular blocky structure; firm; common distinct brown (10YR 4/3) clay films on faces of peds; many medium distinct light olive brown (2.5Y 5/4) and few fine distinct yellowish brown (10YR 5/8) redoximorphic features; moderately acid; clear smooth boundary.

Bt3—27 to 38 inches; dark grayish brown (10YR 4/2) silty clay loam; moderate medium subangular blocky structure; firm; many distinct grayish brown (10YR 5/2) clay films on faces of peds; many dark concretions of iron and manganese; many medium distinct yellowish brown (10YR 5/8) and grayish brown (2.5Y 5/2) redoximorphic features; moderately acid; abrupt smooth boundary.

2Bt4—38 to 41 inches; mixed light olive brown (2.5Y 5/4), greenish gray (5G 6/1), and yellowish brown (10YR 5/8) clay; moderate medium and coarse angular blocky structure; very firm; few faint olive gray (5Y 5/2) clay films on faces of peds; neutral; gradual smooth boundary.

2Cr—41 to 60 inches; mixed olive (5Y 5/3), greenish gray (5BG 6/1), and yellowish brown (10YR 5/8), thinly bedded clayey shale containing many fragments of limestone in discontinuous layers ranging from 1 to 3 inches in thickness; horizontal cleavage planes with light greenish gray (5G 7/1) fillings and coats; slightly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the loess: 30 to 50 inches
Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the solum: 40 to 50 inches
Depth to clayey, calcareous shale bedrock: 40 to 60 inches

A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam; silty clay loam in pedons in eroded areas
Reaction—moderately acid to neutral

Bt horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Reaction—moderately acid to neutral

2B horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—2 to 6
Texture—silty clay loam, silty clay, or clay
Reaction—neutral to moderately alkaline

2Cr horizon:
Hue—10YR, 2.5Y, 5Y, 5GY, 5G, 5BG, or N
Value—4 to 6
Chroma—0 to 4
Texture—clay or silty clay
Reaction—slightly alkaline or moderately alkaline

546B—Keltner silt loam, 2 to 5 percent slopes

Setting

Landform: Valley sides
Position on the landform: Summits and shoulders

Map Unit Composition

Keltner and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils underlain by glacial till
- Soils that do not have a seasonal high water table within a depth of 60 inches

Dissimilar soils:
- The somewhat poorly drained Loran soils on summits

Properties and Qualities of the Keltner Soil

Parent material: Loess over residuum derived from shale
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Available water capacity: About 7.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest perched seasonal high water table: 2 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

546C2—Keltner silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Valley sides
Position on the landform: Backslopes

Map Unit Composition

Keltner and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils underlain by glacial till
- Soils that do not have a seasonal high water table within a depth of 60 inches
- Soils that have less than 30 inches of loess over the weathered shale

Dissimilar soils:
- The somewhat poorly drained Loran soils on summits
- The poorly drained Sawmill soils in drainageways

Properties and Qualities of the Keltner Soil

Parent material: Loess over residuum derived from shale
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Available water capacity: About 7.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest perched seasonal high water table: 2 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Keomah Series

Taxonomic classification: Fine, smectitic, mesic Aeric Endoaqualfs

Typical Pedon (Official Series Description)

Keomah silt loam, 0 to 2 percent slopes, at an elevation of 655 feet; 2,495 feet south and 300 feet west of the northeast corner of sec. 4, T. 2 N., R. 7 W.; in Adams County, Illinois; USGS Lorraine topographic quadrangle; lat. 40 degrees 11 minutes 22 seconds N. and long. 91 degrees 12 minutes 11 seconds W., NAD 27:

Ap1—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak thick platy structure parting to weak fine subangular blocky; friable; many very fine and fine roots; moderately acid; abrupt smooth boundary.

Ap2—6 to 11 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak medium platy structure parting to weak fine subangular blocky; friable; common very fine and fine roots; few distinct brown (7.5YR 4/4) masses of iron in the matrix; moderately acid; abrupt smooth boundary.

E—11 to 18 inches; grayish brown (10YR 5/2) silt loam, light gray (10YR 7/2) dry; weak medium platy structure parting to weak fine subangular blocky; friable; common fine roots; few faint dark grayish brown (10YR 4/2) organic coats on faces of peds and in pores; few distinct strong brown (7.5YR 5/6) masses of iron and few distinct black (2.5Y 2.5/1) masses of iron and manganese in the matrix; few faint light gray (10YR 7/2) clay depletions in the matrix; slightly acid; clear smooth boundary.

Bt1—18 to 25 inches; brown (10YR 5/3) silty clay loam; weak medium prismatic structure parting to moderate fine subangular blocky; firm; common fine roots; many distinct grayish brown (10YR 5/2) clay films on faces of peds; many distinct strong brown (7.5YR 5/6) masses of iron and common distinct black (2.5Y 2.5/1) masses of iron and manganese in the matrix; few faint grayish brown (10YR 5/2) iron depletions in the matrix; strongly acid; clear smooth boundary.

Bt2—25 to 33 inches; brown (10YR 5/3) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; firm; few fine roots; many distinct grayish brown (10YR 5/2) clay films on faces of peds and few faint pressure faces; many distinct strong brown (7.5YR 5/6) masses of iron and common distinct black (2.5Y 2.5/1) masses of iron and manganese in the matrix; strongly acid; clear smooth boundary.

Bt3—33 to 44 inches; brown (10YR 5/3) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots; common distinct grayish brown (10YR 5/2) clay films on faces of peds; many distinct strong brown (7.5YR 5/6) masses of iron and common distinct black (2.5Y 2.5/1) masses of iron and manganese in the matrix; common faint light brownish gray (10YR 6/2) iron depletions in the matrix; moderately acid; clear smooth boundary.

Bt4—44 to 51 inches; light brownish gray (10YR 6/2) silty clay loam; weak coarse prismatic structure; firm; few fine roots; few distinct dark grayish brown (10YR 4/2) clay films in root channels and/or pores; many distinct strong brown (7.5YR 5/6) masses of iron and few distinct black (2.5Y 2.5/1) masses of iron and manganese in the matrix; moderately acid; clear smooth boundary.

BC1—51 to 63 inches; light brownish gray (10YR 6/2) silt loam; weak coarse prismatic structure; friable; few very fine roots; common prominent very dark grayish brown (10YR 3/2) organo-clay films in root channels and/or pores; many distinct strong brown (7.5YR 5/6) masses of iron and few distinct black (2.5Y 2.5/1) masses of iron and manganese in the matrix; slightly acid; clear smooth boundary.

BC2—63 to 76 inches; light brownish gray (10YR 6/2) silt loam; weak coarse prismatic structure; friable; common prominent very dark grayish brown (10YR 3/2) organo-clay films in root channels and/or pores; many distinct strong brown (7.5YR 5/6) masses of iron and few distinct black (2.5Y 2.5/1) masses of iron and manganese in the matrix; slightly acid; clear smooth boundary.

C—76 to 89 inches; yellowish brown (10YR 5/6) silt loam; massive; friable; few faint strong brown (7.5YR 5/6) masses of iron and few prominent black (2.5Y 2.5/1) masses of iron and manganese in the matrix; common distinct light brownish gray (10YR 6/2) iron depletions in the matrix; slightly acid.

Range in Characteristics

Depth to the base of diagnostic horizon: 40 to 76 inches

Ap or A horizon:
Hue—10YR
Value—3 or 4
Chroma—1 or 2
Texture—silt loam

E horizon:
Hue—10YR
Value—4 or 5
Chroma—1 to 3
Texture—silt loam

Bt horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 or 5

Chroma—2 to 4
Texture—silty clay loam or silty clay

BC or C horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 or 5
Chroma—2 to 4
Texture—silty clay loam or silt loam

17A—Keomah silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Keomah and similar soils: 92 percent
Dissimilar soils: 8 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Keomah soil
- Soils that have an average of less than 35 percent clay

Dissimilar soils:
- The poorly drained Denny soils in depressions
- The well drained Fayette and Rozetta soils on shoulders

Properties and Qualities of the Keomah Soil

Parent material: Loess or other silty material
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: High
Depth and months of highest apparent seasonal high water table: 0.5 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Not hydric

La Hogue Series

Taxonomic classification: Fine-loamy, mixed, superactive, mesic Aquic Argiudolls

Typical Pedon (Official Series Description)

La Hogue loam, 0 to 2 percent slopes, at an elevation of 675 feet; 1,910 feet north and 150 feet east of the southwest corner of sec. 7, T. 19 N., R. 14 W.; in Champaign County, Illinois; USGS Homer topographic quadrangle; lat. 40 degrees 07 minutes 05 seconds N. and long. 87 degrees 59 minutes 39 seconds W., NAD 27:

Ap—0 to 10 inches; black (10YR 2/1) loam, dark gray (10YR 4/1) dry; weak fine angular fragments (cloddy) parting to weak fine granular structure; friable; neutral; abrupt smooth boundary.

A—10 to 16 inches; very dark brown (10YR 2/2) loam, dark grayish brown (10YR 4/2) dry; weak medium subangular blocky structure parting to moderate fine granular; friable; neutral; clear smooth boundary.

Bt1—16 to 26 inches; brown (10YR 4/3) clay loam; weak medium prismatic structure; friable; many distinct dark grayish brown (10YR 4/2) clay films on faces of peds; common distinct very dark grayish brown (10YR 3/2) organic coats on faces of peds; few fine irregularly shaped accumulations of iron and manganese; few fine faint grayish brown (10YR 5/2) redoximorphic depletions and yellowish brown (10YR 5/4) redoximorphic concentrations; neutral; clear smooth boundary.

Bt2—26 to 36 inches; brown (10YR 4/3) sandy clay loam; moderate medium prismatic structure; friable; many distinct dark grayish brown (10YR 4/2) clay films on faces of peds; few fine irregularly shaped accumulations of iron and manganese; few fine prominent strong brown (7.5YR 5/6) redoximorphic concentrations and distinct light brownish gray (10YR 6/2) redoximorphic depletions; neutral; clear smooth boundary.

Bt3—36 to 43 inches; brown (10YR 4/3) sandy loam; weak medium prismatic structure; friable; many distinct dark grayish brown (10YR 4/2) clay films on faces of peds; common medium irregularly shaped accumulations of iron and manganese; common medium prominent reddish brown (5YR 4/4) and common medium distinct yellowish brown (10YR 5/6) redoximorphic concentrations; neutral; gradual smooth boundary.

Cg1—43 to 54 inches; grayish brown (10YR 5/2) and strong brown (7.5YR 5/6) sandy loam; massive; very friable; common medium irregularly shaped accumulations of iron and manganese; common medium distinct reddish brown (5YR 4/4) redoximorphic concentrations; neutral; abrupt smooth boundary.

Cg2—54 to 61 inches; gray (10YR 5/1) sandy loam; massive; friable; few medium prominent yellowish brown (10YR 5/8) redoximorphic concentrations; neutral; abrupt smooth boundary.

Cg3—61 to 65 inches; light olive gray (5Y 6/2) and brownish yellow (10YR 6/6) silt loam; massive; friable; common medium distinct yellowish brown (10YR 5/8) redoximorphic concentrations; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to the base of the argillic horizon: 35 to 60 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—sandy loam, silt loam, or loam
Reaction—moderately acid to slightly alkaline

Bt horizon (upper part):
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—2 to 6
Texture—sandy clay loam, loam, clay loam, or sandy loam
Reaction—strongly acid to neutral

Bt horizon (lower part):
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—2 to 6
Texture—sandy loam, sandy clay loam, or loamy sand
Reaction—moderately acid to slightly alkaline

Cg or C horizon:
Hue—7.5YR, 10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 8
Texture—sand to silt loam
Reaction—slightly acid to slightly alkaline

102A—La Hogue loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Footslopes

Map Unit Composition

La Hogue and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
• Soils that have less clay and more sand than the La Hogue soil

Dissimilar soils:
• The well drained Cresent and Dickinson soils on summits
• The poorly drained Orio soils in depressions
• The poorly drained Selma soils on toeslopes

Properties and Qualities of the La Hogue Soil

Parent material: Outwash
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately slow to moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Lenzburg Series

Taxonomic classification: Fine-loamy, mixed, active, calcareous, mesic Haplic Udarents

Typical Pedon

Lenzburg silty clay loam, 35 to 70 percent slopes, stony; 280 feet west and 400 feet north of the southeast corner of sec. 22, T. 16 N., R. 6 E.; in Bureau County, Illinois; USGS Neponset topographic quadrangle; lat. 41 degrees 21 minutes 05 seconds N.

and long. 89 degrees 46 minutes 52 seconds W., NAD 27:

A—0 to 3 inches; dark grayish brown (10YR 4/2) silty clay loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; common very fine, fine, and medium roots throughout; about 1 percent fragments of shale; slightly alkaline; clear smooth boundary.

C1—3 to 14 inches; pale olive (5Y 6/3) and gray (5Y 6/1) silty clay loam; massive; firm; many very fine and fine, common medium, and few coarse roots; about 7 percent fragments of shale; slightly effervescent; slightly alkaline; gradual wavy boundary.

C2—14 to 24 inches; pale olive (5Y 6/3) channery silty clay loam; few fine faint gray (5Y 6/1) and common fine distinct light olive brown (2.5Y 5/6) mottles; massive; firm; many very fine and common fine roots; about 20 percent fragments of shale; slightly effervescent; slightly alkaline; clear wavy boundary.

C3—24 to 60 inches; brown (10YR 5/3) very channery clay loam; common fine distinct yellowish brown (10YR 5/6) mottles; massive; firm; common very fine, fine, and medium roots; about 60 percent fragments of shale; slightly effervescent; slightly alkaline.

Range in Characteristics

A or Ap horizon:
Hue—10YR, 2.5Y, or 5Y
Value—2 to 5
Chroma—1 to 6
Texture—silt loam, silty clay loam, clay loam, loam, or the gravelly, stony, or channery analogs of these textures

C horizon:
Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 4
Texture—loam, silt loam, clay loam, silty clay loam, or the channery, gravelly, or cobbly analogs of these textures

871B—Lenzburg silty clay loam, 1 to 7 percent slopes

Setting

Landform: Hills
Position on the landform: Summits and shoulders

Map Unit Composition

Lenzburg and similar soils: 100 percent

Minor Components

Similar soils:
- Soils that have more than 35 percent rock fragments
- Soils that are not calcareous

Properties and Qualities of the Lenzburg Soil

Parent material: Mine spoil or earthy fill
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate or high
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and low for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

871G—Lenzburg silty clay loam, 20 to 60 percent slopes

Setting

Landform: Hills
Position on the landform: Backslopes (fig. 5)

Map Unit Composition

Lenzburg and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that have more than 35 percent rock fragments
- Soils that are not calcareous

Dissimilar soils:
- Soils on ridgetops in areas that have slopes of less than 20 percent
- Soils in long, narrow, parallel swales and depressions that are often flooded during wet periods

Figure 5.—An area of Lenzburg silty clay loam, 20 to 60 percent slopes. This soil occurs as unreclaimed areas that have been mined for coal.

Properties and Qualities of the Lenzburg Soil

Parent material: Mine spoil or earthy fill
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 4.0 percent
Shrink-swell potential: High
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and low for concrete
Surface runoff class: Very high
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Littleton Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aquic Cumulic Hapludolls

Typical Pedon

Littleton silt loam, 0 to 2 percent slopes; 200 feet north and 1,420 feet east of the southwest corner of sec. 16, T. 20 N., R. 4 E.; in Whiteside County, Illinois; USGS Erie topographic quadrangle; lat. 41 degrees 42 minutes 52 seconds N. and long. 90 degrees 02 minutes 57 seconds W., NAD 27:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine subangular blocky structure parting to moderate fine granular; friable; few very fine roots throughout; slightly acid; clear smooth boundary.

A1—8 to 20 inches; very dark gray (10YR 3/1) silt loam, dark gray (10YR 4/1) dry; moderate fine and very fine subangular blocky structure parting to moderate fine granular; friable; few fine roots throughout; few very thin strata of brown (10YR 5/3) silt loam; slightly acid; clear smooth boundary.

A2—20 to 36 inches; black (10YR 2/1) silt loam, dark gray (10YR 4/1) dry; moderate fine and very fine subangular blocky structure; friable; few fine roots between peds; slightly acid; gradual smooth boundary.

BA—36 to 52 inches; brown (10YR 5/3) silt loam; moderate medium subangular blocky structure; friable; many faint grayish brown (10YR 5/2) coats on faces of peds and root channels; common distinct very dark gray (10YR 3/1) organic coats on faces of peds; few fine distinct yellowish brown (10YR 5/6) iron masses in the matrix; neutral; clear smooth boundary.

Bg—52 to 61 inches; grayish brown (10YR 5/2) silty clay loam; strong medium prismatic structure; friable; many faint grayish brown (10YR 5/2) coats on faces of peds; common medium distinct yellowish brown (10YR 5/6) iron masses in the matrix; few faint black (N 2/0) iron-manganese concretions; neutral; clear smooth boundary.

Cg—61 to 80 inches; grayish brown (10YR 5/2) silt loam; massive; friable; common medium distinct yellowish brown (10YR 5/6) iron masses in the matrix; few faint black (N 2/0) iron-manganese concretions; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 24 to 36 inches
Thickness of the solum: 30 to 62 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam

Bg horizon:
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—2 or 3
Texture—silt loam or silty clay loam

Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 4
Texture—silt loam; thin strata of silty clay loam in some pedons

81A—Littleton silt loam, 0 to 2 percent slopes

Setting

Landform: Stream terraces and alluvial fans
Position on the landform: Summits and footslopes

Map Unit Composition

Littleton and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a surface layer less than 24 inches thick
- Soils that have more clay than the Littleton soil
- Soils that have a water table within a depth of 1 foot

Dissimilar soils:
- The well drained Raddle soils on summits

Properties and Qualities of the Littleton Soil

Parent material: Alluvium
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 13.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent

Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Loran Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aquic Argiudolls
Taxadjunct features: The Loran soil in map unit 572C2 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as an Aquollic Hapludalf.

Typical Pedon (Official Series Description)

Loran silt loam, 2 to 5 percent slopes; 1,290 feet west and 620 feet south of the center of sec. 34, T. 26 N., R. 8 E.; in Stephenson County, Illinois; USGS Forreston North topographic quadrangle; lat. 42 degrees 12 minutes 23 seconds N. and long. 89 degrees 33 minutes 58 seconds W., NAD 27:

Ap—0 to 6 inches; black (10YR 2/1) silt loam, very dark gray (10YR 3/1) dry; moderate medium granular structure; friable; neutral; abrupt smooth boundary.
A—6 to 13 inches; black (10YR 2/1) silt loam, very dark gray (10YR 3/1) dry; moderate medium granular structure; friable; neutral; clear smooth boundary.
Bt1—13 to 17 inches; very dark grayish brown (10YR 3/2) silty clay loam, grayish brown (10YR 5/2) dry; moderate fine and medium subangular blocky structure; firm; few thin very dark gray (10YR 3/1) clay films on faces of peds; neutral; clear smooth boundary.
Bt2—17 to 21 inches; dark grayish brown (10YR 4/2) silty clay loam; few fine faint dark yellowish brown (10YR 4/4) mottles; moderate fine and medium subangular blocky structure; firm; common moderately thick very dark grayish brown (10YR 3/2) clay films on faces of peds; many black (10YR 2/1) concretions of iron and manganese; neutral; clear smooth boundary.
Btg1—21 to 29 inches; dark grayish brown (2.5Y 4/2) and grayish brown (2.5Y 5/2) silty clay loam; few fine distinct yellowish brown (10YR 5/6) mottles; weak moderate prismatic structure parting to moderate fine and medium subangular blocky; firm; common moderately thick dark gray (10YR 4/1) clay films on faces of peds; many black (10YR 2/1) concretions of iron and manganese; neutral; clear smooth boundary.
Btg2—29 to 38 inches; grayish brown (2.5Y 5/2) silt loam; common fine prominent yellowish brown (10YR 5/8) and brownish yellow (10YR 6/8) mottles; weak medium and coarse prismatic structure parting to moderate medium subangular blocky; firm; common moderately thick dark grayish brown (2.5Y 4/2) clay films on faces of peds; many black (10YR 2/1) concretions of iron and manganese; neutral; abrupt smooth boundary.
2Bt—38 to 40 inches; mottled yellowish brown (10YR 5/6), brown (7.5YR 5/4), and strong brown (7.5YR 5/6) clay loam; weak coarse angular blocky structure; firm; few thin dark grayish brown (2.5YR 4/2) clay films on faces of peds; few black (10YR 2/1) stains and concretions of iron and manganese; neutral; abrupt smooth boundary.
3BCg—40 to 45 inches; greenish gray (5GY 6/1) clay; weak medium prismatic structure; extremely firm; strongly effervescent; slightly alkaline; gradual smooth boundary.
3Cr—45 to 60 inches; greenish gray (5GY 6/1), clayey shale; spots and streaks of yellow (10YR 7/8 and 8/6); massive; extremely firm; strongly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the loess: 30 to 50 inches
Thickness of the mollic epipedon: 10 to 17 inches
Depth to paralithic contact: 40 to 60 inches
Thickness of the solum: 40 to 55 inches

Ap horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Reaction—slightly acid or neutral

Bt horizon:
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—2 or 3
Texture—silty clay loam; silt loam in the lower part
Reaction—slightly acid or neutral

2Bt horizon (if it occurs):
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 6
Texture—clay loam, loam, or silt loam
Reaction—slightly acid or neutral

3BCg or 3Bg horizon:
Hue—2.5Y, 5Y, 5GY, or 5G
Value—5 or 6
Chroma—1 to 4
Texture—silty clay or clay
Reaction—neutral or slightly alkaline

3Cr horizon:
Hue—2.5Y, 5Y, 5GY, or 5G
Value—5 or 6
Chroma—1 to 4
Reaction—slightly alkaline or moderately alkaline

572A—Loran silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Loran and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils underlain by glacial till instead of weathered shale
- Soils that are poorly drained

Dissimilar soils:
- The well drained Plano and Proctor soils on summits

Properties and Qualities of the Loran Soil

Parent material: Loess over till over residuum derived from clayey shale
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Available water capacity: About 8.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest perched seasonal high water table: 1 foot (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

572B—Loran silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Loran and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are not calcareous in the lower part
- Soils that are underlain by glacial till instead of weathered shale
- Soils that are moderately well drained

Dissimilar soils:
- The well drained Plano and Proctor soils on shoulders

Properties and Qualities of the Loran Soil

Parent material: Loess over till over residuum derived from clayey shale
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Available water capacity: About 9.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest perched seasonal high water table: 1 foot (February through April)

Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

572C2—Loran silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Loran and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are underlain by glacial till instead of weathered shale
- Soils that are moderately well drained

Dissimilar soils:
- The well drained Plano and Proctor soils on shoulders

Properties and Qualities of the Loran Soil

Parent material: Loess over till over residuum derived from clayey shale
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Slow
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Available water capacity: About 9.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest perched seasonal high water table: 1 foot (February through April)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Marseilles Series

Taxonomic classification: Fine-silty, mixed, active, mesic Typic Hapludalfs

Typical Pedon (Official Series Description)

Marseilles silt loam, 35 to 60 percent slopes, at an elevation of 685 feet; 1,400 feet south and 1,150 feet east of the northwest corner of sec. 14, T. 2 S., R. 6 W.; in Bureau County, Illinois; USGS Liberty topographic quadrangle; lat. 39 degrees 53 minutes 57 seconds N. and long. 91 degrees 03 minutes 53 seconds W., NAD 27:

A—0 to 3 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate very fine granular structure; friable; strongly acid; abrupt smooth boundary.
E—3 to 7 inches; brown (10YR 5/3) silt loam, very pale brown (10YR 7/3) dry; moderate thin platy and moderate very fine granular structure; friable; very few faint dark grayish brown (10YR 4/2) organic coats in root channels and/or pores; strongly acid; clear smooth boundary.
BE—7 to 10 inches; yellowish brown (10YR 5/4) silt loam; weak medium platy and moderate very fine and fine subangular blocky structure; friable; very few faint dark grayish brown (10YR 4/2) organic coats in root channels and/or pores; strongly acid; clear smooth boundary.
2Bt1—10 to 17 inches; yellowish brown (10YR 5/4) silty clay loam; moderate fine and medium subangular blocky structure; firm; very few faint dark grayish brown (10YR 4/2) organic coats in root channels and/or pores and few distinct brown (10YR 5/3) clay films on faces of peds; 1 percent gravel; very strongly acid; clear smooth boundary.
2Bt2—17 to 22 inches; yellowish brown (10YR 5/4) silty clay loam; strong medium subangular blocky structure; firm; common distinct brown (10YR 5/3) clay films and very few faint very pale brown (10YR 7/3) silt coats on faces of peds; 1 percent gravel; very strongly acid; clear smooth boundary.
2Bt3—22 to 35 inches; light olive brown (2.5Y 5/4) silty

clay loam; moderate medium and coarse subangular blocky structure; firm; very few faint brown (10YR 5/3) clay films and very few distinct very pale brown (10YR 7/3) silt coats on faces of peds; 1 percent gravel; very strongly acid; gradual smooth boundary.

2Cr—35 to 60 inches; 70 percent light olive brown (2.5Y 5/4) and 30 percent olive (5Y 5/3) silty clay and unweathered bedrock; massive; firm; 10 percent shale gravel; very strongly acid.

Range in Characteristics

Depth to the base of the argillic horizon: 20 to 40 inches
Depth to paralithic contact: 20 to 40 inches

Ap or A horizon:
Hue—10YR
Value—2 to 5
Chroma—2 or 3
Texture—silt loam or silty clay loam

E or BE horizon:
Hue—10YR
Value—4 or 5
Chroma—2 to 4
Texture—silt loam

Bt horizon:
Hue—10YR
Value—4 or 5
Chroma—3 to 6
Texture—silt loam or silty clay loam

2Bt horizon:
Hue—7.5YR to 2.5Y
Value—4 to 6
Chroma—2 to 4
Texture—clay loam, silt loam, silty clay loam, or silty clay

2Cr horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 4

Minor Components

Similar soils:
- Soils that are calcareous
- Soils that are very strongly acid
- Soils that contain more clay than the Marseilles soil

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The well drained Hickory soils on backslopes
- The well drained Sylvan soils on shoulders
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Marseilles Soil

Parent material: Thin layer of loess over residuum derived from shale
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Available water capacity: About 4.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

549D2—Marseilles silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Marseilles and similar soils: 94 percent
Dissimilar soils: 6 percent

549F—Marseilles silt loam, 18 to 35 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Marseilles and similar soils: 94 percent
Dissimilar soils: 6 percent

Minor Components

Similar soils:
- Soils that are calcareous
- Soils that are very strongly acid
- Soils that contain more clay than the Marseilles soil

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The well drained Hickory soils on backslopes
- The well drained Sylvan soils on shoulders
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Marseilles Soil

Parent material: Thin layer of loess over residuum derived from shale
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Available water capacity: About 5.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: High
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

549F2—Marseilles silt loam, 18 to 35 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Marseilles and similar soils: 93 percent
Dissimilar soils: 7 percent

Minor Components

Similar soils:
- Soils that are calcareous
- Soils that are very strongly acid
- Soils that contain more clay than the Marseilles soil

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The well drained Hickory soils on backslopes
- The well drained Sylvan soils on shoulders
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Marseilles Soil

Parent material: Thin layer of loess over residuum derived from shale
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Available water capacity: About 6.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

913D—Marseilles-Hickory silt loams, 10 to 18 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Marseilles and similar soils: 50 percent

Hickory and similar soils: 40 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that contain more clay
- Soils that are calcareous throughout

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Marseilles Soil

Parent material: Thin layer of loess over residuum derived from shale
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Available water capacity: About 4.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Marseilles—4e; Hickory—3e
Prime farmland status: Not prime farmland
Hydric soil status: Marseilles—not hydric; Hickory—not hydric

913D3—Marseilles-Hickory complex, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Marseilles and similar soils: 50 percent
Hickory and similar soils: 40 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that contain more clay
- Soils that are calcareous throughout

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Marseilles Soil

Parent material: Thin layer of loess over residuum derived from shale
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Available water capacity: About 3.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high

Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Marseilles—6e; Hickory—4e
Prime farmland status: Not prime farmland
Hydric soil status: Marseilles—not hydric; Hickory—not hydric

913F—Marseilles-Hickory silt loams, 18 to 35 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Marseilles and similar soils: 41 percent
Hickory and similar soils: 39 percent
Dissimilar soils: 20 percent

Minor Components

Similar soils:
- Soils that contain more clay
- Soils that are calcareous throughout

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Marseilles Soil

Parent material: Thin layer of loess over residuum derived from shale
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Available water capacity: About 6.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Marseilles—7e; Hickory—6e
Prime farmland status: Not prime farmland
Hydric soil status: Marseilles—not hydric; Hickory—not hydric

913F2—Marseilles-Hickory complex, 18 to 35 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Marseilles and similar soils: 50 percent
Hickory and similar soils: 40 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that contain more clay
- Soils that are calcareous throughout

Dissimilar soils:
- The somewhat poorly drained Atlas soils on backslopes
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Marseilles Soil

Parent material: Thin layer of loess over residuum derived from shale
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Available water capacity: About 4.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high
Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Marseilles—7e; Hickory—6e
Prime farmland status: Not prime farmland
Hydric soil status: Marseilles—not hydric; Hickory—not hydric

918D3—Marseilles-Atlas silty clay loams, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Marseilles and similar soils: 55 percent
Atlas and similar soils: 30 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that contain less clay

Dissimilar soils:
- The well drained Hickory soils on backslopes
- The well drained Sylvan soils on shoulders
- The somewhat poorly drained Orion soils in drainageways

Properties and Qualities of the Marseilles Soil

Parent material: Thin layer of loess over residuum derived from shale
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Very slow
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Available water capacity: About 6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high
Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Properties and Qualities of the Atlas Soil

Parent material: Paleosol that formed in till
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Impermeable
Permeability below a depth of 60 inches: Slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: High
Depth and months of highest perched seasonal high water table: 1 foot (April through June)
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Very high
Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: Marseilles—6e; Atlas—6e
Prime farmland status: Not prime farmland
Hydric soil status: Marseilles—not hydric; Atlas—not hydric

Medway Series

Taxonomic classification: Fine-loamy, mixed, superactive, mesic Fluvaquentic Hapludolls

Typical Pedon

Medway loam, 0 to 2 percent slopes, rarely flooded; 440 feet north and 2,460 feet west of the southeast corner of sec. 26, T. 20 N., R. 4 E.; in Whiteside County, Illinois; USGS Erie topographic quadrangle; lat. 41 degrees 41 minutes 10 seconds N. and long. 90 degrees 00 minutes 22 seconds W., NAD 27:

Ap—0 to 11 inches; black (10YR 2/1) loam, very dark gray (10YR 3/1) dry; moderate medium and fine subangular blocky structure; friable; few fine roots throughout; few pebbles; neutral; abrupt smooth boundary.

A—11 to 19 inches; very dark grayish brown (10YR 3/2) loam, grayish brown (10YR 5/2) dry; moderate medium and fine subangular blocky structure parting to moderate fine granular; friable; few fine roots throughout; many faint black (10YR 2/1) organic coats on faces of peds; few pebbles; neutral; clear smooth boundary.

BA—19 to 27 inches; brown (10YR 4/3) loam; moderate medium and fine subangular blocky structure; friable; few fine roots between peds; many distinct very dark grayish brown (10YR 3/2) organic coats on faces of peds; few pebbles; few fine faint grayish brown (10YR 5/2) iron depletions; neutral; gradual smooth boundary.

Bw1—27 to 37 inches; brown (10YR 5/3) clay loam; weak coarse and medium subangular blocky structure; friable; few fine roots between peds; few distinct dark gray (10YR 4/1) organic coats in root channels; few pebbles; few fine rounded dark reddish brown (5YR 2.5/2) soft accumulations of iron-manganese throughout; few fine faint grayish brown (10YR 5/2) iron depletions and few fine distinct yellowish brown (10YR 5/6) iron masses in the matrix; neutral; abrupt smooth boundary.

Bw2—37 to 50 inches; yellowish brown (10YR 5/4) sandy clay loam; thin strata of sandy loam and gravelly sandy loam; weak coarse and medium subangular blocky structure; friable; few faint brown (10YR 5/3) coats in root channels; band of very dark grayish brown (10YR 3/2) sandy clay loam 1 inch thick at a depth of 44 inches; few fine rounded black (N 2/0) manganese concretions; few pebbles; few fine distinct grayish brown (10YR 5/2) iron depletions and many fine prominent strong brown (7.5YR 5/8 and 5/6) iron masses in the matrix; neutral; abrupt smooth boundary.

C—50 to 60 inches; stratified dark grayish brown (10YR 4/2) sandy loam and loamy sand and brown (10YR 5/3) and yellowish brown (10YR 5/6) sand; massive; very friable; few fine rounded black (N 2/0) manganese concretions; few pebbles; few fine prominent strong brown (7.5YR 5/6) iron masses in the matrix; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the solum: 28 to 60 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam or loam

BA or Bw horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—3 to 5
Chroma—2 to 4
Texture—loam, silt loam, silty clay loam, clay loam, or sandy clay loam

C horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 or 5
Chroma—1 to 6
Texture—stratified loam, silt loam, sandy loam, silty clay loam, or clay loam; thin strata of sand or gravel below a depth of 40 inches

7682A—Medway loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform: Flood plains

Map Unit Composition

Medway and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have more sand and less clay than the Medway soil

Dissimilar soils:
- The poorly drained Ambraw soils on flood plains

Properties and Qualities of the Medway Soil

Parent material: Alluvium
Drainage class: Moderately well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate or moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1.5 to 4.0 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: 1.5 feet (February through April)
Frequency of flooding: Rare (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Milford Series

Taxonomic classification: Fine, mixed, superactive, mesic Typic Endoaquolls

Typical Pedon

Milford silty clay loam, 0 to 2 percent slopes; 1,120 feet south and 540 feet west of the northeast corner of sec. 30, T. 19 N., R. 5 E.; in Whiteside County, Illinois; USGS Hooppole topographic quadrangle; lat. 41 degrees 36 minutes 08 seconds N. and long. 89 degrees 57 minutes 39 seconds W., NAD 27:

Ap—0 to 7 inches; black (N 2/0) silty clay loam, dark gray (N 4/0) dry; moderate very fine subangular blocky structure; friable; few very fine roots between peds; slightly acid; abrupt smooth boundary.
A—7 to 17 inches; black (N 2/0) silty clay, dark gray (N 4/0) dry; moderate fine and very fine subangular blocky structure; friable; few very fine roots between peds; slightly acid; clear smooth boundary.
AB—17 to 24 inches; very dark gray (10YR 3/1) silty clay, dark gray (10YR 4/1) dry; moderate fine prismatic structure parting to strong fine angular blocky; friable; few fine roots between peds; many faint black (N 2/0) organic coats on faces of peds; neutral; clear smooth boundary.
Bg1—24 to 34 inches; dark gray (5Y 4/1) silty clay loam; moderate fine prismatic structure parting to strong fine angular blocky; friable; black (N 2/0) krotovinas 1 inch wide at a depth of 26 inches; few prominent very dark gray (10YR 3/1) organic

coats on faces of peds; few fine faint gray (5Y 5/1) iron depletions and few fine prominent yellowish brown (10YR 5/4) iron masses in the matrix; neutral; gradual smooth boundary.

Bg2—34 to 43 inches; olive gray (5Y 5/2) silty clay loam; moderate medium prismatic structure; friable; few prominent dark gray (10YR 4/1) organic coats in root channels; many fine prominent yellowish brown (10YR 5/6) iron masses and few fine faint dark gray (5Y 4/1) iron depletions in the matrix; neutral; abrupt smooth boundary.

Cg—43 to 60 inches; light gray (5Y 6/1) silt loam; massive; friable; strata of silt at a depth of 48 inches; common dark gray (5Y 4/1) krotovinas; few fine prominent light olive brown (2.5Y 5/6) iron masses in the matrix; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 12 to 24 inches
Thickness of the solum: 38 to 50 inches

Ap, A, or AB horizon:
Hue—10YR or N
Value—2 or 3
Chroma—0 or 1
Texture—silty clay loam

Bg horizon:
Hue—10YR, 2.5Y, or N
Value—4 to 6
Chroma—0 to 2
Texture—silty clay loam or silty clay

Cg horizon:
Hue—10YR, 2.5Y, or N
Value—4 to 6
Chroma—0 to 2
Texture—silty clay loam or silty clay

69A—Milford silty clay loam, 0 to 2 percent slopes

Setting

Landform: Lake plains

Map Unit Composition

Milford and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
• Soils that have either more clay or less clay than the Milford soil
• Soils that are calcareous in the lower part

Dissimilar soils:
• The poorly drained Aholt soils in positions similar to those of the Milford soil

Properties and Qualities of the Milford Soil

Parent material: Glaciolacustrine deposits
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: High
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Millbrook Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Udollic Endoaqualfs

Typical Pedon (Official Series Description)

Millbrook silt loam, 0 to 2 percent slopes, at an elevation of 660 feet; 55 feet north and 2,240 feet west of the southeast corner of sec. 36, T. 17 N., R. 9 E.; in Champaign County, Illinois; USGS Villa Grove Northwest topographic quadrangle; lat. 39 degrees 52 minutes 49 seconds N. and long. 88 degrees 07 minutes 51 seconds W., NAD 27:

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; few fine rounded black (7.5YR 2.5/1) very weakly cemented iron and manganese nodules throughout; neutral; abrupt smooth boundary.

E—7 to 14 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak medium platy structure parting to moderate medium granular; friable; many distinct very dark gray (10YR 3/1) organic coats on faces of peds; few fine rounded black (7.5YR 2.5/1) very weakly cemented iron and manganese nodules throughout; many fine faint brown (10YR 4/3) and few fine prominent yellowish brown (10YR 5/6) masses of iron in the matrix; neutral; clear smooth boundary.

Bt—14 to 21 inches; yellowish brown (10YR 5/6) silty clay loam; moderate fine subangular blocky structure; friable; few distinct dark gray (10YR 4/1) clay films on faces of peds and in pores; few medium irregular black (7.5YR 2.5/1) very weakly cemented iron and manganese nodules throughout; few fine distinct yellowish brown (10YR 5/8) masses of iron in the matrix; common medium prominent grayish brown (10YR 5/2) iron depletions in the matrix; moderately acid; clear smooth boundary.

Btg1—21 to 35 inches; 70 percent gray (10YR 5/1) and 30 percent yellowish brown (10YR 5/6) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; friable; few distinct dark gray (10YR 4/1) clay films on faces of peds and in pores; common medium irregular black (7.5YR 2.5/1) very weakly cemented iron and manganese nodules throughout; moderately acid; clear smooth boundary.

2Btg2—35 to 44 inches; gray (10YR 5/1) clay loam; moderate medium prismatic structure; friable; few distinct dark gray (10YR 4/1) clay films on faces of peds; few distinct very dark gray (10YR 3/1) organo-clay films in pores; few medium irregular black (7.5YR 2.5/1) very weakly cemented iron and manganese nodules throughout; many coarse prominent yellowish brown (10YR 5/6) masses of iron in the matrix; slightly acid; clear smooth boundary.

2BCg—44 to 55 inches; 60 percent gray (10YR 5/1) and 40 percent yellowish brown (10YR 5/4), stratified clay loam and sandy loam; weak medium prismatic structure; friable; few medium irregular black (7.5YR 2.5/1) iron and manganese coats on faces of peds; common medium prominent yellowish brown (10YR 5/8) masses of iron in the matrix; 10 percent fine gravel in clay loam strata; neutral; clear smooth boundary.

2Cg1—55 to 73 inches; 60 percent gray (10YR 5/1) and 40 percent yellowish brown (10YR 5/4) sandy loam stratified with thin lenses of coarse sand; massive; very friable; 5 percent fine gravel; neutral; abrupt smooth boundary.

2Cg2—73 to 80 inches; 60 percent pale brown (10YR 6/3) and 40 percent light brownish gray (10YR 6/2) sandy loam; massive; very friable; 5 percent fine gravel; slightly effervescent; slightly alkaline.

Range in Characteristics

Depth to the base of the argillic horizon: 40 to 60 inches
Depth to carbonates: More than 40 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam
Reaction—strongly acid to slightly alkaline

E horizon:
Hue—10YR
Value—4 to 6
Chroma—2 or 3
Texture—silt loam
Reaction—strongly acid to neutral

Bt and/or Btg horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—1 to 6
Texture—silty clay loam or silt loam
Reaction—strongly acid to neutral

2Bt, 2Btg, 2BC, and/or 2BCg horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—1 to 6
Texture—sandy loam, sandy clay loam, loam, or clay loam; thin strata of sand or silt loam in some pedons
Reaction—strongly acid to slightly alkaline

2C and/or 2Cg horizon:
Hue—7.5YR, 10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 8
Textures—stratified sandy loam, loam, clay loam, sandy clay loam, or silt loam; thin strata of loamy sand, sand, or coarse sand in some pedons
Reaction—moderately acid to moderately alkaline

219A—Millbrook silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Footslopes and shoulders

Map Unit Composition

Millbrook and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that have a surface layer 10 or more inches thick
- Soils that are poorly drained
- Soils that are underlain by sand

Dissimilar soils:
- The well drained Plano and Proctor soils on summits

Properties and Qualities of the Millbrook Soil

Parent material: Eolian deposits over outwash
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 0.5 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland where drained
Hydric soil status: Not hydric

M-W—Miscellaneous water

General Definition

- This map unit consists of manmade areas that are used for industrial, sanitary, or mining applications and that contain water most of the year.

Moline Series

Taxonomic classification: Fine, smectitic, mesic Vertic Endoaquolls

Typical Pedon (Official Series Description)

Moline silty clay, 0 to 2 percent slopes, at an elevation of 577 feet; 60 feet north and 2,600 feet west of the southeast corner of sec. 16, T. 17 N., R. 1 E.; in Henry County, Illinois; USGS Coal Valley topographic quadrangle; lat. 41 degrees 27 minutes 30 seconds N. and long. 90 degrees 23 minutes 00 seconds W., NAD 27:

Ap—0 to 7 inches; black (10YR 2/1) silty clay, dark gray (10YR 4/1) dry; moderate medium subangular blocky structure; firm; neutral; clear smooth boundary.

A—7 to 14 inches; black (N 2/0) silty clay, very dark gray (10YR 3/1) dry; strong medium subangular blocky structure; firm; neutral; clear wavy boundary.

Bg1—14 to 24 inches; dark gray (5Y 4/1) clay; strong medium and coarse subangular blocky structure; very firm; common medium black (N 2/0) organic coats on faces of peds; few medium prominent strong brown (7.5YR 5/6) masses of iron; neutral; clear wavy boundary.

Bg2—24 to 33 inches; grayish brown (2.5Y 5/2) clay; strong medium and coarse subangular blocky structure; very firm; common medium distinct light brownish gray (10YR 6/2) iron depletions; common coarse prominent reddish brown (5YR 4/4) masses of iron; violently effervescent; slightly alkaline; abrupt wavy boundary.

2B1—33 to 52 inches; reddish brown (2.5YR 4/4) clay; strong medium and coarse subangular blocky structure; very firm; common gray (10YR 6/1) calcium carbonate concretions; many coarse prominent grayish brown (2.5Y 5/2) iron depletions; violently effervescent; moderately alkaline; clear wavy boundary.

2B2—52 to 65 inches; reddish brown (2.5YR 4/4) clay; strong medium and coarse subangular blocky structure; very firm; many gray (10YR 6/1) calcium carbonate concretions; moderately effervescent; slightly alkaline; gradual wavy boundary.

2BC—65 to 75 inches; reddish brown (2.5YR 4/4) clay; several thin (less than 1 cm) olive gray (5Y 5/2) bands of silt loam in the lower part; weak coarse subangular blocky structure; firm; moderately effervescent; slightly alkaline; clear wavy boundary.

3Cg—75 to 100 inches; light brownish gray (2.5Y 6/2) silt loam; massive; friable; many coarse prominent brownish yellow (10YR 6/8) masses of iron; moderately effervescent; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches
Depth to free carbonates: 20 to 50 inches
Thickness of the solum: 45 to 80 inches

Ap and A horizons:
Hue—10YR, 2.5Y, or N
Value—2 or 3
Chroma—0 to 2
Texture—silty clay or silty clay loam
Reaction—slightly acid to slightly alkaline

Bg horizon:
Hue—5Y or 2.5Y
Value—3 to 5
Chroma—1 or 2
Texture—clay or silty clay
Reaction—slightly acid to slightly alkaline

2B and 2BC horizons:
Hue—2.5YR or 5YR
Value—3 to 5
Chroma—2 to 6
Texture—clay or silty clay; strata of silt, silt loam, and silty clay loam in some pedons
Reaction—neutral to strongly alkaline

3C horizon (if it occurs):
Hue—10YR, 2.5Y, or 5Y
Value—3 to 6
Chroma—1 or 2
Texture—silt loam or silty clay loam; strata of finer or coarser textures in some pedons below a depth of 50 inches
Reaction—slightly alkaline to strongly alkaline

7654A—Moline silty clay, 0 to 2 percent slopes, rarely flooded

Setting

Landform: Flood plains

Map Unit Composition

Moline and similar soils: 100 percent

Minor Components

Similar soils:
• Soils that have a surface layer less than 10 inches thick

Properties and Qualities of the Moline Soil

Parent material: Clayey lacustrine deposits over stratified alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 6.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Very high
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.5 foot during wet periods
Frequency of flooding: Rare (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Montgomery Series

Taxonomic classification: Fine, mixed, active, mesic Vertic Endoaquolls
Taxadjunct features: The Montgomery soils in this survey area have more than 60 percent clay in one subhorizon of the Bt horizon. Also, they have smectitic clay mineralogy.

Typical Pedon

Montgomery silty clay, 0 to 2 percent slopes; 1,400 feet west and 250 feet north of the southeast corner of sec. 7, T. 18 N., R. 4 E.; in Henry County, Illinois; USGS Spring Hill topographic quadrangle; lat. 41 degrees 33 minutes 18 seconds N. and long. 90 degrees 04 minutes 27 seconds W., NAD 27:

Ap—0 to 8 inches; black (10YR 2/1) silty clay, very dark gray (10YR 3/1) dry; moderate fine subangular blocky structure; firm; neutral; clear smooth boundary.
A1—8 to 13 inches; black (10YR 2/1) silty clay, very dark gray (10YR 3/1) dry; moderate fine subangular blocky structure parting to moderate

medium granular; firm; neutral; clear smooth boundary.

A2—13 to 17 inches; very dark gray (10YR 3/1) silty clay, dark gray (10YR 4/1) dry; moderate fine and medium subangular blocky structure; firm; neutral; abrupt wavy boundary.

Bg1—17 to 21 inches; dark gray (10YR 4/1) silty clay loam; moderate fine and medium subangular blocky structure; firm; common very dark gray (10YR 3/1) organic coats on faces of peds; common fine distinct grayish brown (10YR 5/2) redoximorphic features; neutral; clear smooth boundary.

Bg2—21 to 24 inches; grayish brown (2.5Y 5/2) silty clay loam; moderate fine and medium subangular blocky structure; firm; few dark stains of iron and manganese; common coarse faint olive (5Y 5/3) and few fine prominent yellowish brown (10YR 5/6) redoximorphic features; few lime concretions; slightly alkaline; clear smooth boundary.

Bg3—24 to 30 inches; light olive gray (5Y 6/2) silty clay loam; moderate fine and medium subangular blocky structure; firm; few dark stains of iron and manganese; few fine prominent yellowish brown (10YR 5/6) redoximorphic features; many lime concretions; slightly effervescent; slightly alkaline; clear smooth boundary.

Bg4—30 to 38 inches; olive gray (5Y 5/2) clay; strong medium and coarse angular blocky structure; firm; dark gray (10YR 4/1) root channel linings and krotovinas; few fine prominent yellowish brown (10YR 5/6) redoximorphic features; many lime concretions; slightly effervescent; slightly alkaline; clear smooth boundary.

Bg5—38 to 55 inches; light olive gray (5Y 6/2) silty clay; moderate coarse angular blocky structure; friable; common medium prominent yellowish brown (10YR 5/8) redoximorphic features; few lime concretions; slightly effervescent; slightly alkaline; abrupt smooth boundary.

Cg—55 to 60 inches; light olive gray (5Y 6/2) silty clay; massive; friable; common coarse prominent yellowish brown (10YR 5/8) redoximorphic features; strongly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 18 inches
Thickness of the solum: 30 to 60 inches

Ap horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silty clay loam or silty clay

Bg1 horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—silty clay loam, silty clay, or clay

Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 3
Texture—silty clay loam or silty clay; stratified with silt loam in some pedons

465A—Montgomery silty clay, 0 to 2 percent slopes

Setting

Landform: Lake plains

Map Unit Composition

Montgomery and similar soils: 100 percent

Minor Components

Similar soils:
- Soils that are not calcareous within a depth of 60 inches
- Soils that are calcareous beginning at the surface
- Soils that have less clay in the surface layer or throughout than the Montgomery soil
- Soils that have a surface layer more than 24 inches thick

Properties and Qualities of the Montgomery Soil

Parent material: Lacustrine deposits
Drainage class: Very poorly drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: High
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.5 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Muscatune Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Aquic Argiudolls

Typical Pedon

Muscatune silt loam, 0 to 2 percent slopes; 2,500 feet west and 2,240 feet north of the southeast corner of sec. 29, T. 9 N., R. 1 W.; in Warren County, Illinois; USGS Greenbush topographic quadrangle; lat. 40 degrees 44 minutes 11 seconds N. and long. 90 degrees 31 minutes 46 seconds W., NAD 27:

Ap—0 to 7 inches; black (10YR 2/1) silt loam, dark grayish brown (10YR 4/2) dry; moderate fine granular structure; very friable; common very fine and fine roots throughout; neutral; abrupt smooth boundary.

A—7 to 13 inches; very dark gray (10YR 3/1) silt loam, dark grayish brown (10YR 4/2) dry; moderate fine granular structure; very friable; common very fine and fine roots throughout; neutral; clear smooth boundary.

AB—13 to 20 inches; mixed very dark grayish brown (10YR 3/2) and brown (10YR 4/3) silt loam, dark grayish brown (10YR 4/2) dry; moderate fine subangular blocky structure parting to weak fine granular; friable; common very fine roots throughout; few faint very dark gray (10YR 3/1) organic coats on faces of peds; few faint dark grayish brown (10YR 4/2) clay films on faces of peds; neutral; clear smooth boundary.

Bt1—20 to 28 inches; brown (10YR 4/3) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots between peds; few faint dark grayish brown (10YR 4/2) clay films on faces of peds; common faint very dark grayish brown (10YR 3/2) organic coats on faces of peds; common dark manganese stains; neutral; clear smooth boundary.

Bt2—28 to 38 inches; brown (10YR 5/3) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots between peds; common distinct dark grayish brown (2.5Y 4/2) clay films on faces of peds; few fine distinct yellowish brown (10YR 5/6) and faint pale brown (10YR 6/3) iron masses in the matrix; common dark manganese stains; neutral; clear smooth boundary.

Btg—38 to 50 inches; light brownish gray (2.5Y 6/2) silty clay loam; moderate medium subangular blocky structure; friable; few very fine roots between peds; common prominent grayish brown (10YR 5/2) clay films on faces of peds; common fine prominent yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/6) iron masses in the matrix; common dark manganese stains; slightly acid; clear smooth boundary.

BCg—50 to 60 inches; light brownish gray (2.5Y 6/2) silt loam; weak medium subangular blocky structure; friable; common medium prominent yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/6) iron masses in the matrix; common dark manganese stains; slightly acid; clear smooth boundary.

Cg—60 to 80 inches; light brownish gray (2.5Y 6/2) silt loam; massive; friable; many medium prominent yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/6) iron masses in the matrix; few fine round very dark brown (10YR 2/2) soft masses of iron and manganese; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches
Thickness of the loess: More than 60 inches
Depth to free carbonates: More than 40 inches
Thickness of the solum: 40 to 64 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam or silty clay loam

Bt horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—2 to 4
Texture—silty clay loam

C horizon:
Hue—10YR or 2.5Y
Value—5 or 6
Chroma—2 to 4
Texture—silt loam or silty clay loam

51A—Muscatune silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Muscatune and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a surface layer less than 10 inches thick
- Soils that have a seasonal high water table at a depth of more than 2 feet

Dissimilar soils:
- The poorly drained Denny soils in depressions
- The well drained Osco soils on shoulders
- The poorly drained Sable soils on summits

Properties and Qualities of the Muscatune Soil

Parent material: Loess
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3.5 to 5.0 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Muskego Series

Taxonomic classification: Coprogenous, euic, mesic Limnic Haplosaprists

Typical Pedon

Muskego muck, 0 to 2 percent slopes; 710 feet west and 320 feet north of the southeast corner of sec. 31, T. 17 N., R. 7 E.; in Bureau County, Illinois; USGS Manlius topographic quadrangle; lat. 41 degrees 24 minutes 35 seconds N. and long. 89 degrees 43 minutes 32 seconds W., NAD 27:

Oap—0 to 10 inches; sapric material, black (N 2/0) broken face and rubbed, black (10YR 2/1) dry; about 5 percent fiber, less than 2 percent rubbed; weak fine subangular blocky structure parting to weak fine granular; friable; few fine roots throughout; neutral; abrupt smooth boundary.

Oa—10 to 18 inches; sapric material, black (N 2/0) broken face and black (10YR 2/1) rubbed; about 5 percent fiber, less than 2 percent rubbed; moderate medium subangular blocky structure; friable; few fine roots throughout; neutral; clear smooth boundary.

A—18 to 22 inches; black (10YR 2/1) mucky silt loam; moderate medium subangular blocky structure; friable; few fine roots between peds; neutral; clear smooth boundary.

Lco—22 to 28 inches; brown (10YR 4/3) coprogenous earth; weak coarse subangular blocky structure; very friable; many prominent black (10YR 2/1) and common distinct dark brown (10YR 3/3) mucky organic coats on faces of peds and in pores; neutral; clear smooth boundary.

Lca1—28 to 42 inches; grayish brown (2.5Y 5/2) coprogenous earth; massive; very friable; common medium prominent yellow (10YR 7/6) and common medium prominent yellowish brown (10YR 5/6) iron masses in the matrix; few fine distinct dark gray (10YR 4/1) iron depletions; many snail-shell fragments; violently effervescent; slightly alkaline; clear wavy boundary.

Lca2—42 to 60 inches; dark gray (5Y 4/1) coprogenous earth; massive; very friable; common medium prominent brown (7.5YR 4/4) iron masses in the matrix; common snail-shell fragments; violently effervescent; slightly alkaline.

Range in Characteristics

Thickness of the organic deposits: 16 to 51 inches

Surface tier:
Hue—10YR or N
Value—2 or 3
Chroma—0 or 1

Subsurface tier:
Hue—7.5YR, 10YR, or N
Value—2 or 3
Chroma—0 to 2

Lco and Lca horizons:
Hue—7.5YR, 10YR, 2.5Y, 5Y, or N
Value—2 to 5
Chroma—0 to 2

8638A—Muskego muck, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains

Map Unit Composition

Muskego and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
• Soils that have more than 50 inches of organic soil over the underlying marl
• Soils that are underlain by loamy or sandy material

Dissimilar soils:
• The poorly drained Cohoctah, Fella, and Normandy soils on flood plains

Properties and Qualities of the Muskego Soil

Parent material: Herbaceous organic material over coprogenic material
Drainage class: Very poorly drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 16 inches to a depth of 60 inches
Content of organic matter in the surface layer: 60 to 90 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (November through June)
Frequency of flooding: Occasional (November through June)
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 4w
Prime farmland status: Not prime farmland
Hydric soil status: Hydric

Niota Series

Taxonomic classification: Fine, mixed, superactive, mesic Vertic Albaqualfs

Typical Pedon

Niota silt loam, 0 to 2 percent slopes; 600 feet north and 1,320 feet east of the southwest corner of sec. 30, T. 19 N., R. 3 E.; in Whiteside County, Illinois; USGS Hillsdale topographic quadrangle; lat. 41 degrees 36 minutes 01 second N. and long. 90 degrees 12 minutes 17 seconds W., NAD 27:

A—0 to 7 inches; black (10YR 2/1) silt loam, gray (10YR 5/1) dry; moderate very fine and fine granular structure; friable; many fine roots throughout; neutral; clear smooth boundary.

E—7 to 14 inches; mixed grayish brown (10YR 5/2) and dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; moderate thin platy structure parting to moderate fine granular; friable; common fine roots throughout; common distinct light gray (10YR 7/1) (dry) clay depletions on faces of peds; few fine dark concretions of iron and manganese in the matrix; strongly acid; abrupt smooth boundary.

2Bt—14 to 24 inches; reddish brown (5YR 4/4) silty clay; moderate medium prismatic structure parting to moderate medium subangular blocky; very firm; few fine roots between peds; many distinct grayish brown (2.5Y 5/2) clay films on faces of peds; very strongly acid; clear smooth boundary.

2Btg1—24 to 37 inches; mixed gray (5Y 5/1) and light gray (5Y 6/1) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; few fine roots between peds; common distinct dark gray (5Y 4/1) clay films on faces of peds; few fine dark concretions of iron and manganese in the matrix; few fine and medium prominent yellowish red (5Y 4/6) masses of iron in the matrix; very strongly acid; gradual smooth boundary.

3Btg2—37 to 53 inches; light gray (5Y 6/1) silt loam; weak coarse prismatic structure parting to weak medium subangular blocky; friable; common distinct reddish gray (5YR 5/2) clay films on faces of peds; many prominent black (N 2/0) iron and manganese stains on faces of peds; many fine dark concretions of iron and manganese in the matrix; few fine and medium prominent yellowish red (5Y 4/6) masses of iron in the matrix; very strongly acid; clear smooth boundary.

3Cg—53 to 60 inches; light gray (5Y 6/1) silt loam; massive; friable; many fine dark concretions of iron and manganese in the matrix; many fine and medium prominent yellowish red (5Y 4/6) masses of iron in the matrix; slightly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Thickness of the loess: Less than 20 inches
Depth to lacustrine sediments: 10 to 20 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2

Eg horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—1 to 3

2Bt or 2Btg horizon:
Hue—2.5YR to 5Y or N
Value—4 to 6
Chroma—0 to 4
Texture—silty clay, clay, or silty clay loam

3Btg or 3BCg horizon (if it occurs):
Hue—7.5YR to 5Y or N
Value—4 to 6
Chroma—0 to 2
Texture—silt loam, silty clay loam, or loam

3Cg horizon:
Texture—silt loam; strata of loam, clay loam, sandy loam, silty clay loam, or loamy fine sand in some pedons

261A—Niota silt loam, 0 to 2 percent slopes

Setting

Landform: Lake plains
Position on the landform: Summits

Map Unit Composition

Niota and similar soils: 98 percent
Dissimilar soils: 2 percent

Minor Components

Similar soils:
- Soils that have a surface layer 10 or more inches thick
- Soils that have more clay in the surface layer than the Niota soil

Dissimilar soils:
- The well drained Coyne soils on backslopes

Properties and Qualities of the Niota Soil

Parent material: Glaciolacustrine deposits
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Very slow
Permeability below a depth of 60 inches: Moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: High
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and high for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Normandy Series

Taxonomic classification: Fine-loamy, mixed, superactive, calcareous, mesic Fluvaquentic Endoaquolls

Typical Pedon (Official Series Description)

Normandy loam, 0 to 2 percent slopes, occasionally flooded, at an elevation of 758 feet; 210 feet north and 444 feet east of the southwest corner of sec. 33, T. 39 N., R. 1 W.; in Lee County, Illinois; USGS Ashton topographic quadrangle; lat. 41 degrees 48 minutes 15 seconds N. and long. 89 degrees 07 minutes 50 seconds W., NAD 27:

Ap—0 to 8 inches; black (10YR 2/1) loam, dark grayish brown (10YR 4/2) dry; moderate medium granular structure; friable; about 2 percent rock fragments; strongly effervescent; slightly alkaline; abrupt smooth boundary.
AB—8 to 13 inches; very dark gray (10YR 3/1) loam, dark gray (10YR 4/1) dry; moderate medium granular structure; friable; about 2 percent gravel; violently effervescent; slightly alkaline; abrupt smooth boundary.
Bg1—13 to 19 inches; dark gray (10YR 4/1) silt loam, gray (10YR 5/1) dry; moderate medium subangular blocky structure; friable; about 2

percent gravel; violently effervescent; slightly alkaline; abrupt smooth boundary.

Bg2—19 to 25 inches; gray (5Y 5/1) silt loam; moderate medium subangular blocky structure; friable; about 2 percent gravel; common prominent dark gray (10YR 4/1) clay films on faces of peds; few fine prominent yellowish brown (10YR 5/6) redoximorphic concentrations; slightly effervescent; slightly alkaline; abrupt smooth boundary.

Bg3—25 to 33 inches; gray (5Y 5/1) silt loam; moderate medium prismatic structure parting to moderate fine subangular blocky; friable; about 2 percent gravel; common prominent dark gray (10YR 4/1) clay films on faces of peds; common fine prominent yellowish brown (10YR 5/6) redoximorphic concentrations; slightly effervescent; slightly alkaline; clear smooth boundary.

Bg4—33 to 39 inches; gray (5YR 6/1) silt loam; moderate medium prismatic structure parting to moderate coarse subangular blocky; friable; about 2 percent gravel; common prominent dark gray (10YR 4/1) clay films on faces of peds; many medium prominent yellowish brown (10YR 5/6) redoximorphic concentrations; slightly effervescent; slightly alkaline; clear smooth boundary.

Bg5—39 to 49 inches; gray (5Y 6/1) silt loam; moderate coarse subangular blocky structure; friable; few fine prominent yellowish brown (10YR 5/6) redoximorphic concentrations; about 2 percent gravel; violently effervescent; slightly alkaline; clear smooth boundary.

Bg6—49 to 54 inches; very dark gray (10YR 3/1) and dark gray (10YR 4/1) loam; weak medium subangular blocky structure; friable; strongly effervescent; slightly alkaline; abrupt smooth boundary.

2Cg—54 to 60 inches; olive gray (5Y 5/2) sand; single grain; loose; violently effervescent; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches

Ap, Apk, or A horizon:
Hue—10YR or N
Value—2 or 3
Chroma—0 or 1
Texture—loam or silt loam

Bg, Btg, or Bkg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—clay loam, loam, silty clay loam, silt loam, or sandy loam

2Cg horizon:
Hue—10YR, 7.5YR, 2.5Y, or 5Y
Value—5 or 6
Chroma—1 to 4
Texture—sand or loamy sand

8492A—Normandy loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains

Map Unit Composition

Normandy and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have more silt and clay and less sand than the Normandy soil

Dissimilar soils:
- The poorly drained Ambraw soils on flood plains

Properties and Qualities of the Normandy Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 8 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 0.5 foot (January through May)
Frequency of flooding: Occasional (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w

Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Oakville Series

Taxonomic classification: Mixed, mesic Typic Udipsamments

Typical Pedon

Oakville fine sand, 7 to 15 percent slopes; 716 feet south and 1,056 feet east of the northwest corner of sec. 18, T. 17 N., R. 6 E.; in Bureau County, Illinois; USGS Mineral topographic quadrangle; lat. 41 degrees 27 minutes 54 seconds N. and long. 89 degrees 51 minutes 12 seconds W., NAD 27:

Ap—0 to 5 inches; brown (10YR 4/3) fine sand, yellowish brown (10YR 5/4) dry; weak fine granular structure; very friable; common fine roots throughout; neutral; abrupt smooth boundary.
Bw—5 to 23 inches; strong brown (7.5YR 5/6) fine sand; weak medium subangular blocky structure; very friable; few fine roots throughout; neutral; clear smooth boundary.
BC—23 to 36 inches; yellowish brown (10YR 5/6) fine sand; very weak medium subangular blocky structure; very friable; few fine roots throughout; neutral; clear smooth boundary.
C—36 to 60 inches; yellowish brown (10YR 5/6) fine sand; single grain; loose; neutral.

Range in Characteristics

Thickness of the solum: 22 to 40 inches

Ap or A horizon:
Hue—10YR
Value—3 or 4
Chroma—1 to 4
Texture—fine sand, sand, loamy fine sand, or loamy sand

Bw horizon:
Hue—10YR or 7.5YR
Value—4 to 6
Chroma—3 or 4
Texture—fine sand, loamy sand, or sand

C horizon:
Hue—10YR
Value—4 to 7
Chroma—3 to 6
Texture—fine sand

741B—Oakville fine sand, 1 to 7 percent slopes

Setting

Landform: Dunes
Position on the landform: Summits and shoulders

Map Unit Composition

Oakville and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Oakville soil
- Soils that are calcareous within a depth of 60 inches
- Soils that contain more clay and less sand than the Oakville soil

Dissimilar soils:
- The poorly drained Orio soils in depressions
- The well drained Tell soils on summits and shoulders

Properties and Qualities of the Oakville Soil

Parent material: Eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very high

Interpretive Groups

Land capability classification: 4s
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

741D—Oakville fine sand, 7 to 15 percent slopes

Setting

Landform: Dunes
Position on the landform: Backslopes

Map Unit Composition

Oakville and similar soils: 96 percent
Dissimilar soils: 4 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Oakville soil
- Soils that are calcareous within a depth of 60 inches
- Soils that contain more clay and less sand than the Oakville soil

Dissimilar soils:
- The well drained Tell soils on summits and shoulders
- The poorly drained Orio soils in depressions

Properties and Qualities of the Oakville Soil

Parent material: Eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very high

Interpretive Groups

Land capability classification: 6s
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

741F—Oakville fine sand, 20 to 30 percent slopes

Setting

Landform: Dunes
Position on the landform: Backslopes

Map Unit Composition

Oakville and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Oakville soil
- Soils that are calcareous within a depth of 60 inches
- Soils that contain more clay and less sand than the Oakville soil

Dissimilar soils:
- The poorly drained Orio soils in depressions
- The well drained Tell soils on summits and shoulders

Properties and Qualities of the Oakville Soil

Parent material: Eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 7s
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

917B—Oakville-Tell complex, 1 to 7 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits and shoulders

Map Unit Composition

Oakville and similar soils: 50 percent
Tell and similar soils: 45 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer
- Soils that are calcareous within a depth of 60 inches

Dissimilar soils:
- The poorly drained Orio soils in depressions

Properties and Qualities of the Oakville Soil

Parent material: Eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Properties and Qualities of the Tell Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Oakville—4s; Tell—2e
Prime farmland status: Not prime farmland
Hydric soil status: Oakville—not hydric; Tell—not hydric

917C2—Oakville-Tell complex, 5 to 10 percent slopes, eroded

Setting

Landform: Outwash plains
Position on the landform: Shoulders and backslopes

Map Unit Composition

Oakville and similar soils: 50 percent
Tell and similar soils: 40 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer
- Soils that are calcareous within a depth of 60 inches

Dissimilar soils:
- The somewhat poorly drained Joyce soils on footslopes

Properties and Qualities of the Oakville Soil

Parent material: Eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Properties and Qualities of the Tell Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid

Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Oakville—6s; Tell—3e
Prime farmland status: Not prime farmland
Hydric soil status: Oakville—not hydric; Tell—not hydric

917D—Oakville-Tell complex, 7 to 15 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Backslopes

Map Unit Composition

Oakville and similar soils: 60 percent
Tell and similar soils: 30 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer
- Soils that are calcareous within a depth of 60 inches

Dissimilar soils:
- The poorly drained Orio soils in depressions

Properties and Qualities of the Oakville Soil

Parent material: Eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Properties and Qualities of the Tell Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Oakville—6s; Tell—4e
Prime farmland status: Not prime farmland
Hydric soil status: Oakville—not hydric; Tell—not hydric

917D2—Oakville-Tell complex, 10 to 18 percent slopes, eroded

Setting

Landform: Outwash plains
Position on the landform: Backslopes

Map Unit Composition

Oakville and similar soils: 50 percent
Tell and similar soils: 45 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer
- Soils that are calcareous within a depth of 60 inches

Dissimilar soils:
• The somewhat poorly drained Joyce soils on footslopes
• The poorly drained Orio soils in depressions

Properties and Qualities of the Oakville Soil

Parent material: Eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Properties and Qualities of the Tell Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Oakville—6s; Tell—4e
Prime farmland status: Not prime farmland
Hydric soil status: Oakville—not hydric; Tell—not hydric

Orio Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Mollic Endoaqualfs

Typical Pedon (Official Series Description)

Orio loam, 0 to 2 percent slopes, at an elevation of 610 feet; 1,190 feet west and 925 feet north of the southeast corner of sec. 8, T. 18 N., R. 4 E.; in Henry County, Illinois; USGS Spring Hill topographic quadrangle; lat. 41 degrees 33 minutes 55 seconds N. and long. 90 degrees 03 minutes 23 seconds W., NAD 27:

Ap—0 to 9 inches; very dark gray (10YR 3/1) loam, dark gray (10YR 4/1) dry; moderate medium granular structure; friable; many fine roots throughout; moderately acid; abrupt smooth boundary.

E1—9 to 13 inches; grayish brown (10YR 5/2) fine sandy loam, light brownish gray (10YR 6/2) dry; weak medium platy structure; friable; common fine and very fine roots throughout; common medium prominent strong brown (7.5YR 5/6) iron masses in the matrix; moderately acid; clear smooth boundary.

E2—13 to 18 inches; grayish brown (10YR 5/2) fine sandy loam; weak medium platy structure; friable; common fine roots throughout; common medium prominent strong brown (7.5YR 5/6) iron masses in the matrix; neutral; clear smooth boundary.

Btg1—18 to 30 inches; dark grayish brown (10YR 4/2) clay loam; moderate medium subangular blocky structure; friable; common very fine roots between peds; few distinct dark grayish brown (2.5Y 4/2) clay films on faces of peds; common medium distinct yellowish brown (10YR 5/6) iron masses in the matrix; neutral; clear wavy boundary.

Btg2—30 to 35 inches; olive gray (5Y 5/2) clay loam; moderate medium subangular blocky structure; friable; few fine roots between peds; few faint olive gray (5Y 4/2) clay films on faces of peds; many medium prominent yellowish red (5YR 5/8) iron masses in the matrix; neutral; clear wavy boundary.

BCg—35 to 41 inches; grayish brown (2.5Y 5/2) sandy loam; weak medium subangular blocky structure; friable; few fine prominent yellowish red (5YR 5/8) iron masses in the matrix; neutral; clear wavy boundary.

2Cg—41 to 60 inches; grayish brown (2.5Y 5/2) sand; single grain; loose; slightly alkaline.

Range in Characteristics

Thickness of the solum: 35 to 60 inches

Ap or A horizon:
Value—2 or 3
Chroma—1 to 3
Texture—loam, sandy loam, fine sandy loam, or silt loam

E or Eg horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—1 or 2
Texture—loam, sandy loam, fine sandy loam, loamy sand, or loamy fine sand

Btg and BC horizons:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, clay loam, or silty clay loam

2Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—sand, fine sand, loamy fine sand, or loamy sand

200A—Orio loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Depressions

Map Unit Composition

Orio and similar soils: 98 percent
Dissimilar soils: 2 percent

Minor Components

Similar soils:
- Soils that have a thicker surface layer than that of the Orio soil
- Soils that have more sand and less clay than the Orio soil
- Soils that have less sand and more clay than the Orio soil
- Soils that are somewhat poorly drained

Dissimilar soils:
- The well drained Dickinson soils on summits

Properties and Qualities of the Orio Soil

Parent material: Outwash
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Orion Series

Taxonomic classification: Coarse-silty, mixed, superactive, nonacid, mesic Aquic Udifluvents

Typical Pedon

Orion silt loam, 0 to 2 percent slopes, frequently flooded; 270 feet south and 1,000 feet east of the northwest corner of sec. 17, T. 22 N., R. 6 E.; in Whiteside County, Illinois; USGS Milledgeville topographic quadrangle; lat. 41 degrees 54 minutes 06 seconds N. and long. 89 degrees 50 minutes 13 seconds W., NAD 27:

A—0 to 5 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; massive; friable; many thin strata of brown (10YR 4/3) and very dark gray (10YR 3/1) silt loam; neutral; abrupt smooth boundary.

C1—5 to 15 inches; dark grayish brown (10YR 4/2) silt loam; massive; friable; many thin strata of pale brown (10YR 6/3) and yellowish brown (10YR 5/4) silt loam; few fine prominent brown (7.5YR 4/4) masses of iron in the matrix; neutral; clear wavy boundary.

C2—15 to 29 inches; dark grayish brown (10YR 4/2) silt loam; massive; friable; many thin strata of dark yellowish brown (10YR 4/4), yellowish brown (10YR 5/6), and pale brown (10YR 6/3) silt loam; few very dark gray (10YR 3/1) wormcasts; few fine prominent brown (7.5YR 4/4) masses of iron in the matrix; neutral; abrupt wavy boundary.

Ab1—29 to 39 inches; black (N 2/0) silt loam; weak thick platy structure parting to weak medium and fine subangular blocky; friable; neutral; clear smooth boundary.

Ab2—39 to 51 inches; black (N 2/0) silty clay loam; strong medium and fine angular blocky structure; friable; neutral; clear smooth boundary.

Ab3—51 to 60 inches; very dark gray (10YR 3/1) silty clay loam; moderate medium and fine subangular blocky structure; friable; neutral.

Range in Characteristics

Depth to the dark buried soil: 20 to 40 inches
Thickness of the surface layer: 5 to 10 inches

Ap or A horizon:
Hue—10YR
Value—3 to 6
Chroma—2 or 3
Texture—silt loam; stratified in some pedons

C horizon:
Hue—10YR
Value—3 to 5
Chroma—2 or 3
Texture—silt loam; stratified in some pedons

Ab horizon:
Hue—10YR or 2.5Y
Value—2 or 3
Chroma—1 or 2
Texture—silty clay loam or silt loam; stratified in some pedons

3415A—Orion silt loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform: Flood plains

Map Unit Composition

Orion and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
• Soils that have a buried surface layer at a depth of more than 40 inches

Dissimilar soils:
• The poorly drained Sawmill soils on flood plains

Properties and Qualities of the Orion Soil

Parent material: Alluvium
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Frequency of flooding: Frequent (November through June) (fig. 6)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where protected from flooding or not frequently flooded during the growing season
Hydric soil status: Not hydric

8415A—Orion silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains

Map Unit Composition

Orion and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
• Soils that have a buried surface layer at a depth of more than 40 inches

Dissimilar soils:
• The poorly drained Sawmill soils on flood plains

Properties and Qualities of the Orion Soil

Parent material: Alluvium
Drainage class: Somewhat poorly drained

Figure 6.—Flooding in an area of Orion silt loam, 0 to 2 percent slopes, frequently flooded.

Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Frequency of flooding: Occasional (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

802B—Orthents, loamy, undulating

Setting

Landform: Ground moraines

Map Unit Composition

Orthents and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that are dominantly silt loam or silty clay loam
- Soils that have a seasonal high water table within a depth of 60 inches

Dissimilar soils:
- The well drained Hickory soils on backslopes
- The moderately well drained Elco soils on backslopes

• The somewhat poorly drained Radford soils in drainageways

Properties and Qualities of the Orthents

Parent material: Mine spoil or earthy fill
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Osco Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Argiudolls
Taxadjunct features: The Osco soil in map unit 86C2 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as a Mollic Hapludalf.

Typical Pedon (Official Series Description)

Osco silt loam, 2 to 5 percent slopes, at an elevation of 858 feet; 316 feet north and 88 feet west of the southeast corner of sec. 23, T. 24 N., R. 6 E.; in Carroll County, Illinois; USGS Lanark topographic quadrangle; lat. 42 degrees 03 minutes 15 seconds N. and long. 89 degrees 45 minutes 52 seconds W., NAD 27:

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

A—10 to 14 inches; very dark grayish brown (10YR 3/2) silt loam, dark grayish brown (10YR 4/2) dry; moderate medium to coarse granular structure; friable; common fine roots; strongly acid; clear smooth boundary.

BA—14 to 20 inches; dark yellowish brown (10YR 3/4) and dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; weak fine subangular blocky structure; friable; common fine roots; few distinct light brownish gray (10YR 6/2) (dry) silt coats on faces of peds; strongly acid; clear smooth boundary.

Bt1—20 to 26 inches; brown (10YR 4/3) silty clay loam; moderate fine subangular blocky structure; friable; few fine roots; few distinct gray (10YR 6/1) (dry) silt coats and common faint dark brown (10YR 3/3) clay films on faces of peds; strongly acid; clear smooth boundary.

Bt2—26 to 37 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; firm; few fine roots; common distinct light brownish gray (10YR 6/2) (dry) silt coats and many faint dark yellowish brown (10YR 4/4) clay films on faces of peds; common fine faint brown (10YR 5/3) and common medium prominent strong brown (7.5YR 5/8) redoximorphic concentrations; many prominent very dark gray (N 3/0) and dark brown (7.5YR 3/2) manganese concretions; strongly acid; clear smooth boundary.

Bt3—37 to 45 inches; light yellowish brown (10YR 6/4) silty clay loam; moderate coarse subangular blocky structure; friable; few fine roots; many faint dark yellowish brown (10YR 4/4) clay films on faces of peds; common fine distinct light brownish gray (10YR 6/2) redoximorphic depletions and few medium prominent strong brown (7.5YR 5/8) redoximorphic concentrations; strongly acid; gradual smooth boundary.

BC—45 to 55 inches; yellowish brown (10YR 5/4) and brown (10YR 4/3) silty clay loam; weak coarse angular blocky structure; friable; few fine distinct light brownish gray (10YR 6/2) redoximorphic depletions; strongly acid; gradual smooth boundary.

C—55 to 60 inches; yellowish brown (10YR 5/4) and brown (10YR 4/3) silt loam; massive; friable; many fine distinct yellowish brown (10YR 5/6) redoximorphic concentrations and common medium distinct grayish brown (10YR 5/2) redoximorphic depletions; moderately acid.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 18 inches
Thickness of the solum: 40 to more than 60 inches
Depth to free carbonates: More than 48 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

Bt horizon:
Hue—10YR
Value—4 to 6
Chroma—3 or 4
Texture—silty clay loam or silt loam

C or Cg horizon:
Hue—10YR or 2.5Y
Value—4 or 5
Chroma—3 to 6
Texture—silt loam

86B—Osco silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Shoulders and summits

Map Unit Composition

Osco and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a surface layer less than 10 inches thick
- Soils that have more sand in the lower part than the Osco soil
- Soils that have a seasonal high water table within a depth of 4 feet

Dissimilar soils:
- The somewhat poorly drained Ipava and Muscatune soils on summits
- The poorly drained Sable soils on summits
- The poorly drained Denny soils in depressions

Properties and Qualities of the Osco Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

86C2—Osco silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders and backslopes

Map Unit Composition

Osco and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are less eroded than the Osco soil and have a surface layer more than 10 inches thick
- Soils that have more sand in the lower part than the Osco soil
- Soils that have a seasonal high water table within a depth of 4 feet

Dissimilar soils:
- The poorly drained Denny soils in depressions
- The somewhat poorly drained Ipava and Muscatune soils on summits and footslopes
- The poorly drained Sable soils on toeslopes

Properties and Qualities of the Osco Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Moderate

Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Palms Series

Taxonomic classification: Loamy, mixed, euic, mesic Terric Haplosaprists

Typical Pedon

Palms muck, 0 to 2 percent slopes, rarely flooded; 2,040 feet east and 140 feet south of the northwest corner of sec. 6, T. 21 N., R. 4 E.; in Whiteside County, Illinois; USGS Union Grove topographic quadrangle; lat. 41 degrees 50 minutes 37 seconds N. and long. 90 degrees 05 minutes 06 seconds W., NAD 27:

Oap—0 to 10 inches; sapric material, black (N 2/0) broken face and rubbed; about 10 percent fiber, 5 percent rubbed; weak fine granular structure; friable; slightly acid; abrupt smooth boundary.
Oa—10 to 28 inches; sapric material, black (5YR 2.5/1) broken face, black (10YR 2/1) rubbed; about 10 percent fiber, 5 percent rubbed; weak medium platy structure; friable; few thin strata of very dark gray (10YR 3/1) silt loam that has few fine distinct dark yellowish brown (10YR 4/4) iron masses in the matrix; few fine faint dark reddish brown (5YR 2.5/2) coats of iron on faces of peds; neutral; clear smooth boundary.
2Cg1—28 to 36 inches; very dark gray (10YR 3/1) mucky silt loam; massive; friable; few fine prominent reddish brown (2.5YR 4/4) iron masses in the matrix; neutral; clear smooth boundary.
2Cg2—36 to 41 inches; gray (5Y 5/1) silt loam; massive; friable; few very dark gray (10YR 3/1) krotovinas; common fine prominent light olive brown (2.5Y 5/4), brown (7.5YR 5/4), and reddish brown (5YR 5/3) iron masses in the matrix; neutral; clear smooth boundary.
2Cg3—41 to 60 inches; gray (5Y 5/1) silt loam; massive; friable; few fine prominent yellowish brown (10YR 5/6) iron masses in the matrix; slightly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the organic material: 16 to 50 inches

Oap or Oa horizon:
Hue—10YR or N
Value—2 or 3
Chroma—0 to 2

2Cg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—3 to 6
Chroma—0 to 2

100A—Palms muck, 0 to 2 percent slopes

Setting

Landform: Outwash plains

Map Unit Composition

Palms and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Organic soils that are more than 50 inches thick over the underlying loamy material
- Soils that are underlain by sand
- Soils that are calcareous

Dissimilar soils:
- The poorly drained Gilford, Harpster, Hooppole, and Pella soils on summits
- The somewhat poorly drained Watseka soils on summits

Properties and Qualities of the Palms Soil

Parent material: Herbaceous organic material over loamy outwash
Drainage class: Very poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow or moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 16.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 75 to 99 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: At the surface (November through May)

Ponding depth: As much as 0.5 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Not prime farmland
Hydric soil status: Hydric

7100A—Palms muck, 0 to 2 percent slopes, rarely flooded

Setting

Landform: Backswamps

Map Unit Composition

Palms and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have more than 50 inches of organic material over mineral deposits
- Soils that are calcareous
- Soils that are underlain by sand

Dissimilar soils:
- The poorly drained Cohoctah, Fella, and Normandy soils on flood plains

Properties and Qualities of the Palms Soil

Parent material: Herbaceous organic material over loamy alluvium
Drainage class: Very poorly drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow or moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 16.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 75 to 99 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: At the surface (November through June)
Ponding depth: As much as 0.5 foot during wet periods
Frequency of flooding: Rare (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Not prime farmland
Hydric soil status: Hydric

Parkway Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Argiudolls
Taxadjunct features: The Parkway soil in map unit 686B2 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as a Mollic Hapludalf.

Typical Pedon (Official Series Description)

Parkway silt loam, 2 to 5 percent slopes, at an elevation of 632 feet; 1,220 feet north and 1,340 feet west of the southeast corner of sec. 15, T. 17 N., R. 3 E.; in Henry County, Illinois; USGS Geneseo topographic quadrangle; lat. 41 degrees 27 minutes 26 seconds N. and long. 90 degrees 07 minutes 49 seconds W., NAD 27:

Ap—0 to 7 inches; very dark gray (10YR 3/1) silt loam, grayish brown (10YR 5/2) dry; moderate medium granular structure; friable; moderately acid; abrupt smooth boundary.
A1—7 to 14 inches; very dark gray (10YR 3/1) silt loam, grayish brown (10YR 5/2) dry; weak fine and medium subangular blocky structure; friable; moderately acid; gradual smooth boundary.
A2—14 to 18 inches; dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; weak fine and medium subangular blocky structure; friable; moderately acid; clear smooth boundary.
BA—18 to 22 inches; brown (10YR 4/3) silt loam; weak medium subangular blocky structure; friable; common very dark grayish brown (10YR 3/2) organic coats on faces of peds; moderately acid; clear smooth boundary.
Bt1—22 to 28 inches; brown (10YR 4/3) silty clay loam; moderate medium subangular blocky structure; friable; common faint dark brown (10YR 3/3) clay films on faces of peds; neutral; gradual wavy boundary.
Bt2—28 to 39 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular

blocky structure; friable; common faint brown (10YR 4/3) clay films on faces of peds; neutral; gradual wavy boundary.
Bt3—39 to 49 inches; yellowish brown (10YR 5/4) silty clay loam; moderate medium subangular blocky structure; friable; neutral; clear wavy boundary.
2BC—49 to 60 inches; light olive brown (2.5Y 5/4) silty clay loam; moderate medium subangular blocky structure; friable; effervescent; moderately alkaline; 5 percent gravel; clear wavy boundary.
2C—60 to 80 inches; light olive brown (2.5Y 4/4) loam; massive; friable; about 5 percent gravel; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches
Depth to the base of the argillic horizon: 45 to 60 inches
Depth to carbonates: 40 to 60 inches

Ap, A, or AB horizon:
Value—2 or 3
Chroma—1 to 3
Texture—silt loam or silty clay loam

Bt horizon:
Hue—10YR or 7.5YR
Value—4 or 5
Chroma—3 or 4
Texture—silty clay loam or silt loam

2Bt, 2BC, or 2C horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 or 5
Chroma—3 to 8
Texture—clay loam, loam, silty clay loam, or silt loam

686A—Parkway silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Parkway and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
• Soils that have less than 40 inches of loess over the glacial till
• Soils that are moderately well drained
• Soils that have a lens of sandy material above the glacial till

Dissimilar soils:
• The poorly drained Drummer soils on toeslopes

Properties and Qualities of the Parkway Soil

Parent material: Loess over till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

686B—Parkway silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits and shoulders

Map Unit Composition

Parkway and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
• Soils that have less than 40 inches of loess over the glacial till
• Soils that are moderately well drained
• Soils that have a lens of sandy material above the glacial till

Dissimilar soils:
• The poorly drained Drummer soils on toeslopes

• The somewhat poorly drained Elburn soils on footslopes

Properties and Qualities of the Parkway Soil

Parent material: Loess over till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

686B2—Parkway silt loam, 2 to 5 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Parkway and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
• Soils that have less than 40 inches of loess over the glacial till
• Soils that are moderately well drained
• Soils that have a lens of sandy material above the glacial till

Dissimilar soils:
• The poorly drained Drummer soils on toeslopes
• The somewhat poorly drained Elburn soils on footslopes

Properties and Qualities of the Parkway Soil

Parent material: Loess over till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Pella Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Endoaquolls

Typical Pedon

Pella silty clay loam, 0 to 2 percent slopes, at an elevation of 670 feet; 320 feet east and 1,820 feet south of the northwest corner of sec. 30, T. 17 N., R. 6 E.; in Bureau County, Illinois; USGS Mineral topographic quadrangle; lat. 41 degrees 25 minutes 59 seconds N. and long. 89 degrees 51 minutes 21 seconds W., NAD 27:

Ap—0 to 8 inches; black (N 2/0) silty clay loam, black (10YR 2/1) dry; moderate medium granular structure; friable; common fine roots; neutral; abrupt smooth boundary.
A1—8 to 18 inches; black (N 2/0) silty clay loam, black (10YR 2/1) dry; moderate medium subangular blocky structure; friable; few fine roots; neutral; clear smooth boundary.
A2—18 to 23 inches; black (N 2/0) silty clay loam, black (10YR 2/1) dry; moderate fine subangular

blocky structure; friable; few fine roots; few fine prominent brown (10YR 4/3) and few fine prominent strong brown (7.5YR 5/6) redoximorphic features; few snail shells; neutral; clear smooth boundary.

Bg1—23 to 35 inches; grayish brown (2.5Y 5/2) silty clay loam; moderate medium prismatic structure; friable; few fine roots; many medium prominent yellowish red (5YR 5/8) and few fine prominent strong brown (7.5YR 5/6) and distinct dark grayish brown (10YR 4/2) redoximorphic features; black (N 2/0) krotovinas at a depth of 26 to 31 inches; few snail shells; neutral; clear smooth boundary.

2Bg2—35 to 46 inches; grayish brown (2.5Y 5/2) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; friable; few fine roots; common medium prominent yellowish red (5YR 5/8) and few fine distinct dark grayish brown (10YR 4/2) redoximorphic features; common snail shells; slightly alkaline; clear smooth boundary.

2BCg—46 to 50 inches; grayish brown (2.5Y 5/2), stratified silt loam and loam; weak medium prismatic structure; friable; common medium prominent yellowish red (5YR 5/8) redoximorphic features; common snail shells; strongly effervescent; slightly alkaline; clear smooth boundary.

2Cg—50 to 60 inches; grayish brown (2.5Y 5/2), stratified silt loam and sandy loam; massive; friable; common medium prominent yellowish red (5YR 5/8) redoximorphic features; strongly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the solum: 30 to 50 inches
Depth to carbonates: 16 to 40 inches

Ap, A, and/or Ab horizon:
Hue—10YR or N
Value—2 or 3
Chroma—0 to 2
Texture—silty clay loam, silt loam, or clay loam

Btg and/or Bg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—silty clay loam, clay loam, or silty clay

2Btg, 2BCg, and/or 2Bg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—5 or 6
Chroma—1 to 8
Texture—stratified silty clay loam, clay loam, silt loam, or loam; strata of sandy loam, loamy sand, or sand

2Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—5 or 6
Chroma—1 to 8
Texture—stratified silty clay loam, clay loam, silt loam, loam, or sandy loam; strata of loamy sand or sand

153A—Pella silty clay loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Toeslopes

Map Unit Composition

Pella and similar soils: 98 percent
Dissimilar soils: 2 percent

Minor Components

Similar soils:
- Soils that are not calcareous in the lower part
- Soils that are calcareous in the upper part
- Soils that contain more sand in the upper part than the Pella soil
- Soils that contain more clay and less silt than the Pella soil
- Soils that have a seasonal high water table that does not extend to the surface
- Soils in which the surface soil is more than 24 inches thick

Dissimilar soils:
- The well drained Plano and Proctor soils on summits

Properties and Qualities of the Pella Soil

Parent material: Loess over outwash
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 5 to 6 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods

Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Plano Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Argiudolls
Taxadjunct features: The Plano soil in map unit 199C2 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as a Mollic Hapludalf.

Typical Pedon (Official Series Description)

Plano silt loam, 0 to 2 percent slopes, at an elevation of 715 feet; 1,200 feet south and 1,920 feet east of the northwest corner of sec. 13, T. 12 N., R. 7 E.; in Stark County, Illinois; USGS Castleton topographic quadrangle; lat. 41 degrees 01 minute 45 seconds N. and long. 89 degrees 39 minutes 00 seconds W., NAD 27:

Ap—0 to 9 inches; very dark brown (10YR 2/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine granular structure; friable; few very fine roots; slightly acid; clear smooth boundary.
A—9 to 14 inches; dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; moderate fine granular structure; friable; many very fine roots; slightly acid; clear smooth boundary.
Bt1—14 to 19 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate fine subangular blocky structure; friable; common very fine roots; many distinct dark brown (10YR 3/3) organo-clay films on faces of peds; slightly acid; clear smooth boundary.
Bt2—19 to 31 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; common very fine roots; many distinct brown (10YR 4/3) clay films on faces of peds; slightly acid; clear smooth boundary.
Bt3—31 to 43 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; friable; few very fine roots; many distinct brown (10YR 4/3) clay films on faces of peds; common distinct very pale brown (10YR 7/3) (dry) clay depletions on faces of peds; few fine faint yellowish brown (10YR 5/4) masses of iron in the matrix; slightly acid; clear smooth boundary.
Bt4—43 to 49 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium prismatic structure; friable; few very fine roots; many distinct brown (10YR 4/3) clay films on faces of peds; few distinct very pale brown (10YR 7/3) (dry) clay depletions on faces of peds; slightly acid; clear smooth boundary.
2Bt5—49 to 53 inches; dark yellowish brown (10YR 4/4) clay loam; weak medium prismatic structure; friable; few fine roots; many distinct brown (10YR 4/3) clay films on faces of peds; neutral; clear smooth boundary.
2BC—53 to 60 inches; brown (7.5YR 4/4) sandy loam; weak medium subangular blocky structure; very friable; many distinct dark yellowish brown (10YR 3/4) clay films bridging sand grains; about 5 percent gravel; neutral; gradual smooth boundary.
2C—60 to 72 inches; stratified yellowish brown (10YR 5/6) and brown (7.5YR 4/4) sandy loam, loam, and loamy sand; massive; friable; about 12 percent gravel; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches
Depth to the base of the argillic horizon: 44 to 70 inches

Ap or A horizon:
Value—2 or 3
Chroma—1 to 3
Reaction—slightly acid or neutral

AB or BA horizon (if it occurs):
Hue—10YR
Value—3 or 4
Chroma—2 to 4
Texture—silt loam or silty clay loam
Reaction—moderately acid to neutral

Bt horizon (upper and middle parts):
Value—4 or 5
Chroma—3 or 4
Reaction—strongly acid to neutral

Bt horizon (lower part):
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—2 to 4
Reaction—moderately acid to neutral

2Bt or 2BC horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—2 to 6
Texture—silt loam, loam, sandy loam, clay loam, or sandy clay loam
Reaction—moderately acid to slightly alkaline

2C horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—3 to 5
Chroma—3 to 6
Texture—loam, loamy sand, sandy loam, or silt loam
Reaction—moderately acid to moderately alkaline

199A—Plano silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains and stream terraces
Position on the landform: Summits

Map Unit Composition

Plano and similar soils: 94 percent
Dissimilar soils: 6 percent

Minor Components

Similar soils:
• Soils that have more clay and less sand in the lower part than the Plano soil
• Soils that have more sand and less silt and clay in the lower part than the Plano soil
• Soils that have less than 40 inches of loess over the outwash

Dissimilar soils:
• The poorly drained Drummer soils on toeslopes
• The somewhat poorly drained Elburn and Millbrook soils on footslopes

Properties and Qualities of the Plano Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 5 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

199B—Plano silt loam, 2 to 5 percent slopes

Setting

Landform: Outwash plains and stream terraces
Position on the landform: Summits

Map Unit Composition

Plano and similar soils: 91 percent
Dissimilar soils: 9 percent

Minor Components

Similar soils:
• Soils that have more clay and less sand in the lower part than the Plano soil
• Soils that have more sand and less silt and clay in the lower part than the Plano soil
• Soils that have less than 40 inches of loess over the outwash

Dissimilar soils:
• The poorly drained Drummer soils on toeslopes
• The somewhat poorly drained Elburn and Millbrook soils on summits and footslopes

Properties and Qualities of the Plano Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 5 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and low for concrete

Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

199C2—Plano silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Outwash plains
Position on the landform: Shoulders

Map Unit Composition

Plano and similar soils: 91 percent
Dissimilar soils: 9 percent

Minor Components

Similar soils:
- Soils that have more clay in the lower part of the profile than the Plano soil
- Soils that have more sand in the lower part of the profile than the Plano soil

Dissimilar soils:
- The poorly drained Drummer soils on toeslopes
- The somewhat poorly drained Elburn and Millbrook soils on footslopes

Properties and Qualities of the Plano Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and low for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Port Byron Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludolls
Taxadjunct features: The Port Byron soil in map unit 277C2 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as a Mollic Hapludalf.

Typical Pedon (Official Series Description)

Port Byron silt loam, 2 to 5 percent slopes; 2,620 feet south and 400 feet east of the northwest corner of sec. 9, T. 20 N., R. 3 E.; in Whiteside County, Illinois; USGS Erie Northwest topographic quadrangle; lat. 41 degrees 44 minutes 13 seconds N. and long. 90 degrees 10 minutes 08 seconds W., NAD 27:

Ap—0 to 8 inches; very dark gray (10YR 3/1) silt loam, dark grayish brown (10YR 4/2) dry; weak medium granular structure; friable; many very fine and fine roots throughout; moderately acid; abrupt smooth boundary.

A—8 to 13 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate medium and fine subangular blocky structure; friable; common very fine and fine roots throughout; many faint very dark gray (10YR 3/1) organic coats on faces of peds; slightly acid; clear smooth boundary.

BA—13 to 20 inches; brown (10YR 4/3) silt loam; moderate medium and fine subangular blocky structure; friable; common fine roots between peds; many faint very dark grayish brown (10YR 3/2) organic coats on faces of peds; few distinct light gray (10YR 7/2) (dry) clay depletions on faces of peds; few faint very dark grayish brown (10YR 3/2) wormcasts; slightly acid; clear smooth boundary.

Bt1—20 to 31 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium and fine subangular blocky structure; friable; common fine and medium roots between peds; common faint brown (10YR 4/3) clay films on faces of peds; few faint dark brown (10YR 3/3) wormcasts; moderately acid; clear smooth boundary.

Bt2—31 to 40 inches; yellowish brown (10YR 5/4) silt loam; moderate coarse and medium subangular blocky structure; friable; few fine roots between peds; common faint brown (10YR 4/3) clay films on faces of peds; few distinct light gray (10YR 7/2) (dry) clay depletions on faces of peds; moderately acid; clear smooth boundary.

Bt3—40 to 52 inches; yellowish brown (10YR 5/4) silt loam; weak coarse subangular blocky structure; friable; few fine roots between peds; few faint dark yellowish brown (10YR 4/4) clay films on faces of peds; few distinct light gray (10YR 7/2) (dry) clay depletions on faces of peds; few fine faint pale brown (10YR 6/3) masses of iron in the matrix; slightly acid; clear smooth boundary.

BC—52 to 60 inches; yellowish brown (10YR 5/4) silt loam; weak medium and coarse prismatic structure; firm; few fine roots between peds; few distinct light gray (10YR 7/2) (dry) clay depletions on faces of peds; common fine faint yellowish brown (10YR 5/6) masses of iron in the matrix; few fine dark brown (7.5YR 3/2) coats of iron-manganese on faces of peds; slightly acid; clear smooth boundary.

C1—60 to 66 inches; yellowish brown (10YR 5/4) silt; massive; friable; common fine faint yellowish brown (10YR 5/6 and 5/8) masses of iron in the matrix; few fine and medium irregular brown (7.5YR 4/4) and few fine rounded black (N 2/0) concretions of iron-manganese throughout the matrix; common medium black (5Y 2.5/1) irregular masses of iron-manganese in root channels and pores in the lower 2 inches; neutral; gradual smooth boundary.

C2—66 to 77 inches; 50 percent yellowish brown (10YR 5/4) and 50 percent pale brown (10YR 6/3) silt loam; massive; friable; common fine and medium faint yellowish brown (10YR 5/6) and few medium distinct strong brown (7.5YR 5/6) masses of iron in the matrix; light brownish gray (10YR 6/2) iron depletions; few fine and medium irregular black (N 2/0) concretions of iron-manganese throughout the matrix; neutral; gradual smooth boundary.

C3—77 to 89 inches; 70 percent yellowish brown (10YR 5/4) and 30 percent pale brown (10YR 6/3) silt; massive; friable; common fine faint yellowish brown (10YR 5/6 and 5/8) masses of iron in the matrix; few fine faint light brownish gray (10YR 6/2) and gray (10YR 6/1) iron depletions; few fine rounded black (N 2/0) concretions of iron-manganese throughout the matrix; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the solum: 42 to more than 60 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam

BA or Bw horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 or 4
Texture—silt loam

C horizon:
Hue—10YR or 2.5Y
Value—5 or 6
Chroma—2 to 4
Texture—silt loam

277C2—Port Byron silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Port Byron and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that have a lighter colored surface layer than that of the Port Byron soil
- Soils that have slopes of less than 5 percent

Dissimilar soils:
- The poorly drained Sawmill soils in drainageways
- The well drained Tell soils on summits and shoulders

Properties and Qualities of the Port Byron Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High

Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Proctor Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Argiudolls
Taxadjunct features: The Proctor soil in map unit 148C2 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as a Mollic Hapludalf.

Typical Pedon (Official Series Description)

Proctor silt loam, 2 to 5 percent slopes, at an elevation of 705 feet; 204 feet north and 2,460 feet west of the southeast corner of sec. 3, T. 11 N., R. 6 E.; in Peoria County, Illinois; USGS Princeville topographic quadrangle; lat. 40 degrees 57 minutes 37 seconds N. and long. 89 degrees 47 minutes 59 seconds W., NAD 27:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; weak fine granular structure; friable; common very fine roots; moderately acid; clear smooth boundary.

A—8 to 11 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate fine granular structure; friable; common very fine roots; neutral; clear smooth boundary.

Bt1—11 to 16 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate very fine subangular blocky structure; friable; common very fine roots; common distinct very dark grayish brown (10YR 3/2) organo-clay films on faces of peds; moderately acid; clear smooth boundary.

Bt2—16 to 23 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate very fine and fine subangular blocky structure; friable; common very fine roots; many distinct brown (10YR 4/3) clay films on faces of peds; moderately acid; clear smooth boundary.

Bt3—23 to 28 inches; yellowish brown (10YR 5/4) silty clay loam; moderate fine subangular blocky structure; friable; common very fine roots; many distinct brown (10YR 4/3) clay films on faces of peds; moderately acid; clear smooth boundary.

2Bt4—28 to 33 inches; yellowish brown (10YR 5/4) loam; moderate medium subangular blocky structure; friable; few very fine roots; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; moderately acid; clear smooth boundary.

2Bt5—33 to 46 inches; strong brown (7.5YR 5/6), stratified loam and sandy loam; weak coarse subangular blocky structure; very friable; few very fine roots; common faint brown (7.5YR 4/4) clay films on faces of peds; slightly acid; gradual smooth boundary.

2C—46 to 60 inches; strong brown (7.5YR 5/6), stratified sandy loam and loamy sand; massive; very friable; slightly acid.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches
Depth to the base of the argillic horizon: 40 to 65 inches

Ap, A, and/or AB horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam or silty clay loam
Reaction—strongly acid to slightly alkaline

Bt and/or BA horizon:
Hue—7.5YR or 10YR
Value—3 to 6
Chroma—3 to 6
Texture—silty clay loam or silt loam
Reaction—moderately acid to neutral

2Bt and/or 2BC horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—3 to 6
Texture—silty clay loam, silt loam, clay loam, sandy clay loam, loam, or sandy loam; stratified in some pedons
Reaction—moderately acid to neutral

2C horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—3 to 6
Texture—sandy loam, loam, or silt loam; thin strata of loamy sand or sand
Reaction—moderately acid to slightly alkaline

148B—Proctor silt loam, 2 to 5 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits and shoulders

Map Unit Composition

Proctor and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that have less than 20 inches of loess in the upper part
- Soils that have more than 40 inches of loess in the upper part
- Soils that have more sand and less silt and clay in the lower part than the Proctor soil
- Soils that have a surface layer less than 10 inches thick
- Soils that have a seasonal high water table within a depth of 6 feet

Dissimilar soils:
- The somewhat poorly drained Brenton and Millbrook soils on footslopes
- The poorly drained Drummer soils on toeslopes

Properties and Qualities of the Proctor Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

148C2—Proctor silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Outwash plains
Position on the landform: Backslopes and shoulders

Map Unit Composition

Proctor and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that have less than 20 inches of loess in the upper part
- Soils that have more than 40 inches of loess in the upper part
- Soils that have more sand and less silt and clay in the lower part than the Proctor soil

Dissimilar soils:
- The poorly drained Drummer soils on toeslopes
- The somewhat poorly drained Millbrook soils on footslopes

Properties and Qualities of the Proctor Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate or moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Prophetstown Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Calciaquolls

Typical Pedon (Official Series Description)

Prophetstown silt loam, 0 to 2 percent slopes, at an elevation of 632 feet; 520 feet south and 1,820 feet east of the northwest corner of sec. 33, T. 19 N., R. 6 E.; in Whiteside County, Illinois; USGS Yorktown topographic quadrangle; lat. 41 degrees 35 minutes 15 seconds N. and long. 89 degrees 48 minutes 52 seconds W., NAD 27:

Apk—0 to 9 inches; black (10YR 2/1) silt loam, very dark gray (10YR 3/1) dry; weak fine granular structure; friable; few fine roots throughout; violently effervescent; slightly alkaline; abrupt smooth boundary.

Ak—9 to 16 inches; very dark gray (10YR 3/1) silt loam, dark gray (10YR 4/1) dry; weak fine subangular blocky structure parting to weak fine granular; friable; few fine roots throughout; common faint black (10YR 2/1) organic films on faces of peds; violently effervescent; slightly alkaline; clear smooth boundary.

Bkg1—16 to 23 inches; dark grayish brown (2.5Y 4/2) silt loam; weak fine and medium subangular blocky structure; friable; few fine roots between peds; many distinct very dark grayish brown (10YR 3/2) organic coats on faces of peds; many fine distinct light olive brown (2.5Y 5/4) iron masses in the matrix; common fine accumulations of iron and manganese; strongly effervescent; slightly alkaline; clear smooth boundary.

Bkg2—23 to 33 inches; light brownish gray (2.5Y 6/2) silt loam; weak coarse subangular blocky structure; friable; few very fine roots between peds; dark gray (10YR 4/1) krotovina; common fine rounded calcium carbonate concretions; common prominent very dark grayish brown (10YR 3/2) organic coats on faces of peds; many medium prominent yellowish brown (10YR 5/8) iron masses in the matrix; strongly effervescent; slightly alkaline; gradual smooth boundary.

BCg—33 to 40 inches; light brownish gray (2.5Y 6/2) silt loam; weak coarse prismatic structure; friable; dark gray (10YR 4/1) krotovina; common fine rounded calcium carbonate concretions; common fine accumulations of iron and manganese; many medium prominent yellowish brown (10YR 5/8) iron masses in the matrix; strongly effervescent; slightly alkaline; gradual smooth boundary.

Cg1—40 to 52 inches; light brownish gray (2.5Y 6/2) silt loam; massive; friable; common fine accumulations of iron and manganese; common fine rounded calcium carbonate concretions; many medium prominent yellowish brown (10YR 5/8) iron masses in the matrix; strongly effervescent; slightly alkaline; abrupt smooth boundary.

Cg2—52 to 60 inches; gray (10YR 6/1), stratified loam, sandy loam, and silt loam; massive; friable; common fine accumulations of iron and manganese; common fine rounded calcium carbonate concretions; few prominent dark gray (10YR 4/1) linings in root channels; many fine prominent yellowish brown (10YR 5/8) iron masses in the matrix; strongly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 23 inches
Depth to free carbonates: Less than 16 inches
Thickness of the solum: 22 to 48 inches

Apk, Ak, Ap, or A horizon:
Hue—10YR or 2.5Y
Value—2 or 3
Chroma—1 or 2
Texture—silt loam or silty clay loam

Bg or Bkg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 7
Chroma—0 to 2
Texture—silty clay loam, silt loam, loam, or clay loam

Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 7
Chroma—1 or 2
Texture—stratified silt loam, loam, sandy loam, loamy sand, or sand

767A—Prophetstown silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains

Map Unit Composition

Prophetstown and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that are not calcareous in the upper part

- Soils that contain more clay than the Prophetstown soil
- Soils that are somewhat poorly drained

Dissimilar soils:
- The well drained Plano and Proctor soils on summits

Properties and Qualities of the Prophetstown Soil

Parent material: Loess over outwash
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 6 percent
Shrink-swell potential: Low
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

800C—Psamments, sloping

Setting

Landform: Outwash plains
Position on the landform: Backslopes

Map Unit Composition

Psamments and similar soils: 100 percent

Minor Components

Similar soils:
- The excessively drained Oakville soils

Properties and Qualities of the Psamments

Parent material: Outwash and eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 4.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.0 to 0.5 percent
Shrink-swell potential: Low
Flooding: None
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very high

Interpretive Groups

Land capability classification: Not assigned
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Raddle Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludolls

Typical Pedon

Raddle silt loam, 0 to 2 percent slopes; 1,780 feet west and 2,020 feet north of the southeast corner of sec. 23, T. 19 N., R. 4 E.; in Whiteside County, Illinois; Spring Hill topographic quadrangle; lat. 41 degrees 37 minutes 03 seconds N. and long. 90 degrees 00 minutes 13 seconds W., NAD 27:

Ap—0 to 10 inches; black (10YR 2/1) silt loam, dark gray (10YR 4/1) dry; weak fine and medium granular structure; friable; slightly acid; abrupt smooth boundary.

A1—10 to 16 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate medium subangular blocky structure parting to weak fine granular; friable; many faint very dark gray (10YR 3/1) organic coats on faces of peds; moderately acid; clear smooth boundary.

A2—16 to 21 inches; dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; moderate fine and medium subangular blocky structure; friable; clay films on faces of peds; very dark grayish brown (10YR 3/2) organic coats on faces of peds; moderately acid; clear smooth boundary.

BA—21 to 26 inches; brown (10YR 4/3) silt loam; moderate medium subangular blocky structure; friable; common faint dark brown (10YR 3/3) organic coats on faces of peds; moderately acid; clear smooth boundary.

Bt1—26 to 34 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; friable; common faint brown (10YR 4/3) clay films on faces of peds; moderately acid; gradual smooth boundary.

Bt2—34 to 51 inches; dark yellowish brown (10YR 4/4) silt loam; moderate coarse subangular blocky structure; friable; few faint brown (10YR 4/3) clay films on faces of peds; moderately acid; clear smooth boundary.

BC—51 to 61 inches; yellowish brown (10YR 5/4) silt loam; weak coarse angular blocky structure; friable; few fine black (N 2/0) iron-manganese stains on faces of peds; few fine distinct light brownish gray (10YR 6/2) iron depletions; moderately acid; clear smooth boundary.

C—61 to 80 inches; yellowish brown (10YR 5/4) silt loam; massive; friable; few fine prominent black (N 2/0) soft masses of iron-manganese in the matrix; few fine distinct light brownish gray (10YR 6/2) iron depletions; slightly acid.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the solum: 40 to more than 80 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam

Bt or Bw horizon:
Hue—7.5YR or 10YR
Value—3 to 6
Chroma—3 or 4
Texture—silt loam

C horizon:
Hue—7.5YR or 10YR
Value—3 to 6
Chroma—2 to 4
Texture—silt loam; thin strata of sandy loam, loam, clay loam, or silty clay loam in some pedons

430A—Raddle silt loam, 0 to 2 percent slopes

Setting

Landform: Stream terraces
Position on the landform: Summits

Map Unit Composition

Raddle and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
• Soils that have a surface layer more than 24 inches thick
• Soils that have a seasonal high water table within a depth of 6 feet

Dissimilar soils:
• The somewhat poorly drained Littleton soils on footslopes

Properties and Qualities of the Raddle Soil

Parent material: Slope alluvium
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 13 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

430B—Raddle silt loam, 2 to 5 percent slopes

Setting

Landform: Terraces
Position on the landform: Shoulders and backslopes

Map Unit Composition

Raddle and similar soils: 89 percent
Dissimilar soils: 11 percent

Minor Components

Similar soils:
• Soils that have a surface layer more than 24 inches thick
• Soils that have a seasonal high water table within a depth of 6 feet

Dissimilar soils:
• The somewhat poorly drained Littleton soils on footslopes

Properties and Qualities of the Raddle Soil

Parent material: Alluvium
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Radford Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Fluvaquentic Hapludolls

Typical Pedon

Radford silt loam, 0 to 2 percent slopes, occasionally flooded; 1,109 feet west and 1,254 feet south of the northeast corner of sec. 23, T. 17 N., R. 8 E.; in Bureau County, Illinois; USGS Buda Northeast topographic quadrangle; lat. 41 degrees 26 minutes 54 seconds N. and long. 89 degrees 32 minutes 04 seconds W., NAD 27:

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate medium granular structure; friable; common fine roots; moderately acid; abrupt smooth boundary.

A—9 to 21 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate medium granular structure; friable; common fine roots; few fine dark masses of iron and manganese throughout; slightly acid; gradual smooth boundary.

C—21 to 29 inches; stratified very dark gray (10YR 3/1) silt loam and brown (10YR 5/3) silty clay loam; weak medium subangular blocky structure; friable; few fine roots; common fine dark masses of iron and manganese throughout; slightly acid; clear smooth boundary.

Ab1—29 to 36 inches; black (10YR 2/1) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; few medium faint very dark grayish brown (10YR 3/2) masses of iron and manganese in the matrix; few very fine dark masses of iron and manganese throughout; slightly acid; clear smooth boundary.

Ab2—36 to 43 inches; black (10YR 2/1) silty clay loam; weak medium subangular blocky structure; friable; few fine faint very dark grayish brown (10YR 3/2) masses of iron and manganese in the matrix; few very fine dark masses of iron and manganese throughout; neutral; clear smooth boundary.

Bgb—43 to 60 inches; black (10YR 2/1) silty clay loam; moderate medium prismatic structure parting to moderate medium subangular blocky; friable; few fine faint dark gray (10YR 4/1) iron depletions in the matrix; few very fine dark masses of iron and manganese throughout; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to the buried soil: 20 to 40 inches

Ap or A horizon:
Value—2 or 3
Chroma—1 or 2

C horizon:
Hue—10YR
Value—2 to 6
Chroma—1 or 2
Texture—silt loam

Ab horizon:
Hue—10YR or N
Value—2 or 3
Chroma—0 or 1
Texture—silt loam, silty clay loam, clay loam, or loam

Bgb horizon (if it occurs):
Hue—10YR, 2.5Y, 5Y, or N
Value—3 to 6
Chroma—0 to 2

3074A—Radford silt loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform: Flood plains

Map Unit Composition

Radford and similar soils: 100 percent

Minor Components

Similar soils:
- Soils that have a buried surface layer at a depth of less than 20 inches or more than 40 inches
- Soils that are stratified in the upper part
- Soils that contain more sand in the upper part than the Radford soil
- Soils that have a lighter colored surface layer than that of the Radford soil

Properties and Qualities of the Radford Soil

Parent material: Alluvium
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Frequency of flooding: Frequent (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where protected from flooding or not frequently flooded during the growing season
Hydric soil status: Not hydric

Richwood Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Argiudolls

Typical Pedon

Richwood silt loam, 0 to 2 percent slopes; 930 feet south and 20 feet east of the northwest corner of sec. 4, T. 18 N., R. 4 E.; in Henry County, Illinois; USGS Spring Hill topographic quadrangle; lat. 41 degrees 34 seconds 53 minutes N. and long. 90 degrees 03 minutes 04 seconds W., NAD 27:

Ap—0 to 9 inches; very dark gray (10YR 3/1) silt loam, dark grayish brown (10YR 4/2) dry; moderate fine and medium subangular blocky structure parting to moderate medium granular; friable; few very fine roots throughout; neutral; abrupt smooth boundary.

A—9 to 14 inches; very dark grayish brown (10YR 3/2) and dark brown (10YR 3/3) silt loam, brown (10YR 4/3) dry; weak medium subangular blocky structure; friable; many very fine roots throughout; slightly acid; clear smooth boundary.

BA—14 to 22 inches; mixed brown (10YR 4/3) and dark brown (10YR 3/3) silt loam; weak fine subangular blocky structure; friable; common very fine roots between peds; neutral; clear smooth boundary.

Bt1—22 to 34 inches; dark yellowish brown (10YR 4/4) silt loam; weak fine and medium subangular blocky structure; very friable; common very fine roots between peds; many faint dark brown (10YR 3/3) clay films on faces of peds; neutral; clear smooth boundary.

Bt2—34 to 48 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; very friable; many faint brown (10YR 4/3) clay films on faces of peds; neutral; abrupt smooth boundary.

2BC—48 to 57 inches; mixed dark yellowish brown (10YR 4/4), yellowish brown (10YR 5/4), and brown (7.5YR 4/2) silt loam; thin strata of very fine sandy loam; weak medium subangular blocky structure; friable; few fine prominent yellowish red (5YR 4/6), few fine distinct brownish yellow (10YR 6/6), and few fine faint brown (10YR 5/3) iron masses in the matrix; neutral; abrupt smooth boundary.

2C—57 to 60 inches; mixed brown (10YR 5/3) and pale brown (10YR 6/3) sand; single grain; loose; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 17 inches
Thickness of the loess: 40 to 60 inches
Thickness of the solum: 40 to 60 inches

Ap or A horizon:
Hue—10YR

Value—2 or 3
Chroma—1 to 3
Texture—silt loam

Bt horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 to 5
Texture—silt loam or silty clay loam

2B horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 or 4
Texture—loam, silt loam, or sandy loam; common thin strata of sandy textures

2C horizon:
Hue—7.5YR or 10YR
Value—4 to 8
Chroma—2 to 6
Texture—sand or fine sand

485A—Richwood silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits

Map Unit Composition

Richwood and similar soils: 94 percent
Dissimilar soils: 6 percent

Minor Components

Similar soils:
• Soils that have more than 27 percent clay in the subsoil
• Soils that have more sand in the upper part than the Richwood soil

Dissimilar soils:
• The somewhat poorly drained Joyce soils on footslopes

Properties and Qualities of the Richwood Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 5 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Low for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

485B—Richwood silt loam, 2 to 5 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Shoulders

Map Unit Composition

Richwood and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
• Soils that are less than 40 inches thick over the underlying sandy material
• Soils that have more sand in the upper part than the Richwood soil

Dissimilar soils:
• The somewhat poorly drained Joyce soils on footslopes

Properties and Qualities of the Richwood Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 5 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Low for steel and low for concrete

Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Rozetta Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon (Official Series Description)

Rozetta silt loam, 0 to 2 percent slopes, at an elevation of 890 feet; 150 feet south and 500 feet east of the center of sec. 18, T. 27 N., R. 6 E.; in Stephenson County, Illinois; USGS Pearl City topographic quadrangle; lat. 42 degrees 20 minutes 00 seconds N. and long. 89 degrees 51 minutes 19 seconds W., NAD 27:

A—0 to 4 inches; very dark gray (10YR 3/1) silt loam, gray (10YR 6/1) dry; weak medium granular structure; friable; many fine roots throughout; moderately acid; clear wavy boundary.

E—4 to 11 inches; dark grayish brown (10YR 4/2) silt loam; weak medium platy structure; friable; many fine roots throughout; strongly acid; clear smooth boundary.

BE—11 to 14 inches; brown (10YR 4/3) silty clay loam; weak medium subangular blocky structure; firm; many fine roots between peds; few faint brown (10YR 5/3) (dry) clay depletions on faces of peds; strongly acid; clear smooth boundary.

Bt1—14 to 21 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate fine and medium subangular blocky structure; firm; many fine roots between peds; many faint brown (10YR 5/3) clay films on faces of peds; strongly acid; clear smooth boundary.

Bt2—21 to 39 inches; brown (10YR 5/3) silty clay loam; moderate medium and coarse subangular blocky structure; firm; many faint dark yellowish brown (10YR 4/4) clay films on faces of peds; few medium faint grayish brown (10YR 5/2) iron depletions; common medium faint light yellowish brown (10YR 6/4) and brown (10YR 4/3) masses of iron in the matrix; strongly acid; clear smooth boundary.

Bt3—39 to 50 inches; yellowish brown (10YR 5/4) silty clay loam; weak coarse subangular blocky structure; firm; few faint brown (10YR 4/3) clay films on faces of peds; common medium distinct grayish brown (10YR 5/2) iron depletions; common medium faint pale brown (10YR 6/3) masses of iron in the matrix; moderately acid; clear smooth boundary.

C—50 to 60 inches; yellowish brown (10YR 5/4) silt loam; massive; friable; common medium distinct dark grayish brown (10YR 4/2) iron depletions; slightly acid.

Range in Characteristics

Thickness of the solum: 42 to 72 inches

Ap or A horizon:
Hue—10YR
Value—3 to 5
Chroma—1 to 3
Texture—silt loam

E horizon:
Hue—10YR
Value—4 to 6
Chroma—2 or 3
Texture—silt loam

Bt horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—silty clay loam

C horizon:
Hue—10YR
Value—4 to 6
Chroma—2 to 6
Texture—silt loam or silty clay loam

279A—Rozetta silt loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Rozetta and similar soils: 98 percent
Dissimilar soils: 2 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Rozetta soil
- Soils that do not have a seasonal high water table within a depth of 6 feet

Dissimilar soils:
• The somewhat poorly drained Clarksdale and Keomah soils on shoulders

Properties and Qualities of the Rozetta Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

279B—Rozetta silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Shoulders and summits

Map Unit Composition

Rozetta and similar soils: 93 percent
Dissimilar soils: 7 percent

Minor Components

Similar soils:
• Soils that have a darker surface layer than that of the Rozetta soil
• Soils that do not have a seasonal high water table within a depth of 6 feet

Dissimilar soils:
• The somewhat poorly drained Clarksdale and Keomah soils on summits

Properties and Qualities of the Rozetta Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 4 feet (February through April)
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Sable Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Endoaquolls

Typical Pedon (Official Series Description)

Sable silty clay loam, 0 to 2 percent slopes; 1,281 feet south and 97 feet west of the northeast corner of sec. 14, T. 9 N., R. 3 W.; in Warren County, Illinois; USGS Kirkwood East topographic quadrangle; lat. 40 degrees 46 minutes 30 seconds N. and long. 90 degrees 41 minutes 32 seconds W., NAD 27:

Ap—0 to 8 inches; black (10YR 2/1) silty clay loam, dark gray (10YR 4/1) dry; moderate fine and medium granular structure; firm; moderately acid; abrupt smooth boundary.
A—8 to 19 inches; black (10YR 2/1) silty clay loam, dark gray (10YR 4/1) dry; moderate very fine angular blocky structure; firm; few fine rounded dark concretions of iron and manganese oxides; slightly acid; clear smooth boundary.
AB—19 to 23 inches; very dark gray (10YR 3/1) silty clay loam, grayish brown (10YR 5/2) dry;

moderate fine angular blocky structure; firm; few faint very dark grayish brown (10YR 3/2) organic coats on faces of peds; few fine dark rounded concretions of iron and manganese; clear smooth boundary.

Bg—23 to 29 inches; dark gray (10YR 4/1) silty clay loam; moderate fine and medium subangular blocky structure; firm; common faint very dark gray (10YR 3/1) organic coats on faces of peds; common fine and medium dark rounded concretions of iron and manganese oxides; common medium distinct brown (10YR 5/3) masses of iron in the matrix; few medium faint dark grayish brown (10YR 4/2) iron depletions; neutral; clear smooth boundary.

Btg1—29 to 38 inches; grayish brown (2.5Y 5/2) silty clay loam; moderate medium and coarse subangular blocky structure; firm; few distinct dark gray (10YR 4/1) clay films on faces of peds; many fine and medium dark rounded concretions of iron and manganese; many medium prominent yellowish brown (10YR 5/6) masses of iron in the matrix; neutral; clear wavy boundary.

Btg2—38 to 47 inches; gray (N 5/0) silt loam; weak medium prismatic structure parting to weak medium and coarse angular blocky; firm; few prominent grayish brown (10YR 5/2) clay films on faces of peds; common fine dark rounded concretions of iron and manganese; many medium prominent yellowish brown (10YR 5/6) masses of iron in the matrix; slightly alkaline; gradual smooth boundary.

Cg—47 to 60 inches; gray (N 5/0) silt loam; massive; friable; many fine prominent yellowish brown (10YR 5/6) masses of iron in the matrix; slightly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 12 to 24 inches
Thickness of the solum: 40 to 60 inches

Ap or A horizon:
Hue—10YR to 5Y or N
Value—2 or 3
Chroma—0 or 1
Texture—silty clay loam or silt loam

Bg or Btg horizon:
Hue—10YR to 5Y or N
Value—3 to 6
Chroma—0 to 2
Texture—silty clay loam or silt loam

C horizon:
Hue—10YR to 5Y or N
Value—4 to 6
Chroma—0 to 2
Texture—silt loam or silty clay loam

68A—Sable silty clay loam, 0 to 2 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Summits

Map Unit Composition

Sable and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a seasonal high water table at a depth of more than 1 foot
- Soils that are calcareous in the lower part
- Soils that have less clay in the surface layer and more clay in the subsoil than the Sable soil

Dissimilar soils:
- The moderately well drained Buckhart soils on summits
- The well drained Osco soils on summits

Properties and Qualities of the Sable Soil

Parent material: Loess
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 5 to 6 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Sawmill Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Cumulic Endoaquolls

Typical Pedon (Official Series Description)

Sawmill silty clay loam, 0 to 2 percent slopes, occasionally flooded; 300 feet south and 750 feet east of the northwest corner of sec. 20, T. 15 N., R. 4 W.; in Sangamon County, Illinois; USGS New City topographic quadrangle; lat. 39 degrees 44 minutes 34 seconds N. and long. 89 degrees 34 minutes 15 seconds W., NAD 27:

Ap—0 to 10 inches; very dark gray (10YR 3/1) and very dark grayish brown (10YR 3/2) silty clay loam, gray (10YR 5/1) dry; weak fine subangular blocky structure; firm; few fine roots throughout; few subrounded pebbles 1 to 3 mm in diameter; slightly acid; clear smooth boundary.

A1—10 to 17 inches; black (10YR 2/1) and very dark grayish brown (10YR 3/2) silty clay loam, dark gray (10YR 4/1) dry; moderate fine subangular blocky structure; firm; few fine roots between peds; few subrounded pebbles 1 to 3 mm in diameter; few fine prominent yellowish brown (10YR 5/6) masses of iron in the matrix; few fine concretions of manganese lining root channels and pores; neutral; clear smooth boundary.

A2—17 to 25 inches; black (10YR 2/1) silty clay loam, dark gray (10YR 4/1) dry; moderate fine and medium angular blocky structure; firm; few fine roots between peds; few fine concretions of manganese lining root channels and pores; few fine prominent yellowish brown (10YR 5/6) masses of iron in the matrix; neutral; clear smooth boundary.

AB—25 to 32 inches; very dark gray (10YR 3/1) silty clay loam, gray (10YR 5/1) dry; weak medium prismatic structure parting to moderate fine subangular blocky; firm; few fine roots between peds; few fine concretions of manganese lining root channels and pores; few fine prominent yellowish brown (10YR 5/6) masses of iron in the matrix; neutral; clear smooth boundary.

Bg—32 to 40 inches; dark gray (10YR 4/1) silty clay loam; weak medium prismatic structure parting to moderate fine and medium angular blocky; firm; few fine roots between peds; few faint very dark gray (10YR 3/1) organic coats on faces of peds; few fine concretions of manganese lining root channels and pores; few fine prominent strong brown (7.5YR 5/6) masses of iron in the matrix; slightly alkaline; clear smooth boundary.

Btg1—40 to 49 inches; grayish brown (10YR 5/2) silty clay loam; moderate medium prismatic structure parting to weak medium angular blocky; firm; common distinct dark gray (10YR 4/1) clay films on faces of peds; few fine concretions of manganese lining root channels and pores; few fine prominent strong brown (7.5YR 5/6) and common fine distinct yellowish brown (10YR 5/4) masses of iron in the matrix; slightly alkaline; clear smooth boundary.

Btg2—49 to 58 inches; grayish brown (2.5Y 5/2) silty clay loam; moderate medium prismatic structure; firm; few distinct gray (10YR 5/1) clay films on faces of peds; few fine concretions of manganese lining pores; few fine prominent yellowish brown (10YR 5/6) masses of iron in the matrix; slightly alkaline; gradual smooth boundary.

Cg—58 to 65 inches; grayish brown (2.5Y 5/2) silty clay loam; massive; firm; very dark gray (10YR 3/1) channel linings and fillings; many medium prominent yellowish brown (10YR 5/6) masses of iron in the matrix; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 24 to 36 inches
Thickness of the solum: 36 to 60 inches

Ap or A horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—2 or 3
Chroma—0 to 2
Texture—silty clay loam

Bg or Btg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—3 to 6
Chroma—1 or 2
Texture—silty clay loam; strata in some pedons

Cg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 2
Texture—silty clay loam or clay loam; strata in some pedons

3107+—Sawmill silt loam, 0 to 2 percent slopes, frequently flooded, overwash

Setting

Landform: Flood plains

Map Unit Composition

Sawmill and similar soils: 100 percent

Minor Components

Similar soils:
- Soils that have more than 20 inches of overwash on the surface
- Soils that do not have overwash on the surface
- Soils that have more sand and less clay in the lower part than the Sawmill soil

Properties and Qualities of the Sawmill Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Frequency of flooding: Frequent (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained and either protected from flooding or not frequently flooded during the growing season
Hydric soil status: Hydric

3107A—Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform: Flood plains

Map Unit Composition

Sawmill and similar soils: 99 percent
Dissimilar soils: 1 percent

Minor Components

Similar soils:
- Soils that have silt loam overwash on the surface
- Soils that have a surface layer less than 24 inches thick

Dissimilar soils:
- The somewhat poorly drained Elburn soils on adjacent low terrace summits
- The well drained Plano soils on adjacent low terrace summits and shoulders

Properties and Qualities of the Sawmill Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 13 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
*Frequency of flooding:*Frequent (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained and either protected from flooding or not frequently flooded during the growing season
Hydric soil status: Hydric

8107+—Sawmill silt loam, 0 to 2 percent slopes, occasionally flooded, overwash

Setting

Landform: Flood plains

Map Unit Composition

Sawmill and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that do not have overwash material on the surface
- Soils that contain more sand and less clay than the Sawmill soil

Dissimilar soils:
- The somewhat poorly drained Elburn soils on adjacent low terrace summits
- The well drained Plano soils on adjacent low terrace summits and shoulders

Properties and Qualities of the Sawmill Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.8 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Frequency of flooding: Occasional (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Seaton Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Seaton silt loam, 2 to 5 percent slopes; 660 feet north and 30 feet east of the center of sec. 8, T. 11 N., R. 4 W.; in Whiteside County, Illinois; USGS Rozetta topographic quadrangle; lat. 40 degrees 57 minutes 44 seconds N. and long. 90 degrees 52 minutes 24 seconds W., NAD 27:

A—0 to 4 inches; dark brown (10YR 3/3) silt loam, brown (10YR 5/3) dry; weak fine granular structure; very friable; slightly acid; clear smooth boundary.

E—4 to 9 inches; brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; weak thin platy structure; friable; slightly acid; clear smooth boundary.

BE—9 to 15 inches; yellowish brown (10YR 5/4) silt loam; weak fine and medium subangular blocky structure; friable; few faint dark brown (10YR 3/3) clay films and common faint light yellowish brown (10YR 6/4) silt coats on faces of peds; moderately acid; clear smooth boundary.

Bt1—15 to 21 inches; yellowish brown (10YR 5/4) silt loam; moderate fine and medium subangular blocky structure; friable; few faint dark brown (10YR 3/3) clay films and few faint light yellowish brown (10YR 6/4) silt coats on faces of peds; moderately acid; clear smooth boundary.

Bt2—21 to 27 inches; brown (7.5YR 5/4) silt loam; moderate fine and medium subangular blocky structure; firm; few faint dark brown (10YR 3/3) clay films and few faint light yellowish brown (10YR 6/4) silt coats on faces of peds; strongly acid; clear smooth boundary.

Bt3—27 to 34 inches; yellowish brown (10YR 5/4) silt loam; moderate medium angular blocky structure; firm; common faint dark brown (10YR 3/3) clay films on faces of peds; strongly acid; gradual smooth boundary.

Bt4—34 to 44 inches; brown (10YR 5/3) silt loam; weak medium and coarse prismatic structure; firm; few faint dark brown (10YR 3/3) clay films and few faint light yellowish brown (10YR 6/4) silt coats on faces of peds; moderately acid; gradual smooth boundary.

BC—44 to 70 inches; brown (10YR 4/3) silt loam; weak very coarse prismatic structure; friable; few faint brown (7.5YR 4/2) clay films on vertical faces of peds; moderately acid; gradual smooth boundary.

C—70 to 95 inches; light brownish gray (10YR 6/2) and brown (10YR 5/3) silt loam; massive; friable; common fine faint dark yellowish brown (10YR 4/4) and yellowish brown (10YR 5/6) masses of iron; massive; friable; slightly acid.

Range in Characteristics

Thickness of the loess: More than 80 inches
Thickness of the solum: 42 to more than 60 inches

Ap or A horizon:
Hue—10YR
Value—2 to 4
Chroma—2 or 3
Texture—silt loam or silt
Reaction—moderately acid to neutral

E horizon (if it occurs):
Hue—10YR
Value—4 to 6
Chroma—2 to 4

Texture—silt loam or silt
Reaction—moderately acid to neutral

Bt horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 or 5
Chroma—3 to 6
Texture—silt loam or silt
Reaction—very strongly acid to neutral

BC horizon (if it occurs):
Hue—10YR or 2.5Y
Value—4 or 5
Chroma—3 or 4

C horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—2 to 6
Texture—silt loam or silt
Reaction—moderately acid to moderately alkaline

274B—Seaton silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Seaton and similar soils: 92 percent
Dissimilar soils: 8 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Seaton soil
- Soils that have a water table within a depth of 60 inches

Dissimilar soils:
- The somewhat poorly drained Joy soils on summits

Properties and Qualities of the Seaton Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: High
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

274C2—Seaton silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Seaton and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Seaton soil
- Soils that are calcareous within a depth of 36 inches

Dissimilar soils:
- The well drained Tell soils on shoulders and backslopes

Properties and Qualities of the Seaton Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

274D2—Seaton silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Seaton and similar soils: 98 percent
Dissimilar soils: 2 percent

Minor Components

Similar soils:
- Soils that have a darker surface layer than that of the Seaton soil
- Soils that are calcareous within a depth of 36 inches

Dissimilar soils:
- The excessively drained Oakville soils on backslopes

Properties and Qualities of the Seaton Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 2.0 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

943D3—Seaton-Timula silt loams, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Seaton and similar soils: 45 percent
Timula and similar soils: 40 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that are calcareous throughout

Dissimilar soils:
- The somewhat poorly drained Joy soils on summits
- The excessively drained Oakville soils on shoulders

Properties and Qualities of the Seaton Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Properties and Qualities of the Timula Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent

Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: Low for steel and low for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Seaton—6e; Timula—6e
Prime farmland status: Not prime farmland
Hydric soil status: Seaton—not hydric; Timula—not hydric

943G—Seaton-Timula silt loams, 35 to 60 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Seaton and similar soils: 50 percent
Timula and similar soils: 40 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are calcareous throughout

Dissimilar soils:
- The well drained Marseilles soils on backslopes
- The excessively drained Oakville soils on backslopes
- The somewhat poorly drained Orion soils in drainageways

Properties and Qualities of the Seaton Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: High
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Properties and Qualities of the Timula Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Low for steel and low for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Seaton—7e; Timula—7e
Prime farmland status: Not prime farmland
Hydric soil status: Seaton—not hydric; Timula—not hydric

Selma Series

Taxonomic classification: Fine-loamy, mixed, superactive, mesic Typic Endoaquolls

Typical Pedon

Selma loam, 0 to 2 percent slopes, at an elevation of 656 feet; 52 feet south and 160 feet west of the northeast corner of sec. 18, T. 28 N., R. 10 E.; in Iroquois County, Illinois; USGS Piper City Northeast topographic quadrangle; lat. 40 degrees 54 minutes 35 seconds N. and long. 88 degrees 06 minutes 43 seconds W., NAD 27:

Ap—0 to 6 inches; black (10YR 2/1) loam, dark gray (10YR 4/1) dry; weak fine and medium granular structure; friable; common very fine and fine roots; neutral; gradual smooth boundary.
A—6 to 13 inches; black (10YR 2/1) clay loam, dark gray (10YR 4/1) dry; weak fine subangular blocky

structure; friable; common fine roots; neutral; gradual wavy boundary.

Btg1—13 to 19 inches; dark grayish brown (2.5Y 4/2) clay loam; moderate fine and medium subangular blocky structure; friable; common fine roots; many prominent very dark gray (2.5Y 3/1) organo-clay films on faces of peds and in pores; few fine distinct yellowish brown (10YR 5/4) masses of iron accumulation in the matrix; neutral; gradual wavy boundary.

Btg2—19 to 28 inches; grayish brown (2.5Y 5/2) loam; moderate medium prismatic structure parting to moderate medium subangular blocky; friable; common fine roots; many prominent dark gray (2.5Y 4/1) clay films on faces of peds; few fine light olive brown (2.5Y 5/4) iron and manganese nodules throughout; common medium distinct olive brown (2.5Y 4/4) masses of iron accumulation in the matrix; slightly alkaline; gradual wavy boundary.

Btg3—28 to 39 inches; grayish brown (2.5Y 5/2) loam; weak fine and medium subangular blocky structure; friable; common fine roots; few distinct dark gray (2.5Y 4/1) clay films on faces of peds; black (N 2.5/0) krotovina from a depth of 30 inches to a depth of 39 inches; few fine dark yellowish brown (10YR 4/6) iron and manganese nodules throughout; few fine prominent light olive brown (2.5Y 5/6) masses of iron accumulation in the matrix; slightly alkaline; gradual wavy boundary.

BCtg—39 to 44 inches; grayish brown (2.5Y 5/2) loam; weak medium subangular blocky structure; friable; few very fine roots; few faint dark gray (2.5Y 4/1) clay films on faces of peds; few fine dark yellowish brown (10YR 4/6) iron and manganese nodules throughout; few fine prominent light olive brown (2.5Y 5/6) masses of iron accumulation in the matrix; strongly effervescent; slightly alkaline; gradual wavy boundary.

Cg1—44 to 54 inches; 55 percent dark gray (2.5Y 4/1), 35 percent gray (2.5Y 5/1), and 10 percent light yellowish brown (2.5Y 6/4), stratified sandy loam and loamy sand; massive in the sandy loam and single grain in the loamy sand; friable in the sandy loam and loose in the loamy sand; few very fine roots; very strongly effervescent; moderately alkaline; gradual wavy boundary.

Cg2—54 to 80 inches; 45 percent dark gray (2.5Y 4/1), 45 percent gray (2.5Y 5/1), and 10 percent light olive brown (2.5Y 5/6), stratified silt loam, sandy loam, and loamy sand; massive in the silt loam and sandy loam and single grain in the loamy sand; friable; few very fine roots; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to carbonates: More than 30 inches
Thickness of the solum: 35 to 55 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—loam or clay loam

Bg, Btg, or BCg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 2
Texture—loam, clay loam, silt loam, or sandy loam
Content of gravel—less than 10 percent

Cg or C horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 to 6
Texture—stratified sandy loam, loam, silt loam, or loamy sand
Content of gravel—less than 15 percent

125A—Selma loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Toeslopes

Map Unit Composition

Selma and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have less clay and more sand than the Selma soil
- Soils that have a seasonal high water table at a depth of more than 1 foot

Dissimilar soils:
- The poorly drained Normandy soils in positions similar to those of the Selma soil

Properties and Qualities of the Selma Soil

Parent material: Outwash
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderately rapid

Depth to restrictive feature: More than 80 inches
Available water capacity: About 11 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 5 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Senachwine Series

Taxonomic classification: Fine-loamy, mixed, active, mesic Typic Hapludalfs

Typical Pedon (Official Series Description)

Senachwine silt loam, 10 to 18 percent slopes, eroded, at an elevation of 863 feet; 860 feet west and 1,300 feet south of the northeast corner of sec. 21, T. 15 N., R. 8 E.; in Bureau County, Illinois; USGS Wyanet topographic quadrangle; lat. 41 degrees 16 minutes 25 seconds N. and long. 89 degrees 34 minutes 18 seconds W., NAD 27:

Ap—0 to 6 inches; mixed brown (10YR 4/3) and yellowish brown (10YR 5/4) silt loam, pale brown (10YR 6/3) dry; moderate fine granular structure; friable; common fine roots; neutral; abrupt smooth boundary.
Bt1—6 to 15 inches; yellowish brown (10YR 5/4) silty clay loam; moderate fine subangular blocky structure; friable; few fine roots; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; moderately acid; clear smooth boundary.
2Bt2—15 to 28 inches; brown (7.5YR 5/4) clay loam; moderate medium subangular blocky structure; firm; few fine roots; many faint brown (7.5YR 4/4) clay films on faces of peds; few fine rounded black (N 2.5/1) weakly cemented iron and manganese concretions throughout; neutral; clear smooth boundary.
2BCt—28 to 34 inches; brown (7.5YR 5/4) loam; weak coarse prismatic structure; firm; few fine roots; common faint brown (7.5YR 4/4) clay films on faces of peds; 5 percent gravel; slightly effervescent; slightly alkaline; clear smooth boundary.
2C—34 to 60 inches; brown (7.5YR 5/4) loam; massive; firm; 5 percent gravel; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the loess: Less than 18 inches
Depth to the base of the argillic horizon: 24 to 40 inches
Depth to carbonates: 20 to 40 inches

Ap or A horizon:
Hue—10YR
Value—3 to 5
Chroma—1 to 4
Texture—loam, silt loam, fine sandy loam, sandy loam, silty clay loam, or clay loam
Reaction—moderately acid to neutral

Bt, 2Bt, BC, or 2BC horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—3 to 6
Texture—silty clay loam or clay loam
Reaction—strongly acid to slightly alkaline

C or 2C horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—5 or 6
Chroma—3 or 4
Texture—clay loam or loam
Reaction—slightly alkaline or moderately alkaline

618C2—Senachwine silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Senachwine and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
• Soils that are calcareous within a depth of 20 inches
• Soils that have a darker surface layer than that of the Senachwine soil

Dissimilar soils:
• The somewhat poorly drained Millbrook soils on footslopes

• The well drained Cresent and Proctor soils on summits and shoulders

Properties and Qualities of the Senachwine Soil

Parent material: Till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 5.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

618D2—Senachwine silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Senachwine and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
• Soils that are calcareous within a depth of 20 inches
• Soils that have a darker surface layer than that of the Senachwine soil

Dissimilar soils:
• The somewhat poorly drained Millbrook soils on footslopes
• The well drained Cresent and Proctor soils on summits and shoulders

Properties and Qualities of the Senachwine Soil

Parent material: Till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderately slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 5.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Sparta Series

Taxonomic classification: Sandy, mixed, mesic Entic Hapludolls

Typical Pedon

Sparta loamy sand, 0 to 2 percent slopes; 2,150 feet north and 1,939 feet east of the southwest corner of sec. 20, T. 23 N., R. 10 E.; in Ogle County, Illinois; USGS Daysville topographic quadrangle; lat. 41 degrees 57 minutes 58 seconds N. and long. 89 degrees 22 minutes 13 seconds W., NAD 27:

A1—0 to 10 inches; very dark gray (10YR 3/1) loamy sand, grayish brown (10YR 5/2) dry; weak medium subangular blocky structure parting to moderate very fine granular; very friable; many fine roots throughout; neutral; clear smooth boundary.

A2—10 to 17 inches; very dark grayish brown (10YR 3/2) loamy sand, grayish brown (10YR 5/2) dry; very weak medium and coarse subangular blocky structure parting to moderate very fine granular; very friable; common fine roots throughout; neutral; clear smooth boundary.

Bw1—17 to 24 inches; dark yellowish brown (10YR 5/4) sand; weak medium and coarse subangular blocky structure; very friable; few fine roots throughout; few distinct very dark grayish brown (10YR 3/2) organic coats and few faint dark brown (10YR 3/3) clay bridges on sand grains; strongly acid; clear smooth boundary.

Bw2—24 to 31 inches; brown (7.5YR 5/4) sand; weak medium and coarse subangular blocky structure; very friable; few fine roots throughout; moderately acid; clear smooth boundary.

C—31 to 60 inches; reddish yellow (7.5YR 6/6) sand; single grain; loose; moderately acid.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches

Ap or A horizon:
Hue—7.5YR or 10YR
Value—2 or 3
Chroma—1 or 2
Texture—fine sand, sand, loamy fine sand, or loamy sand

Bw horizon:
Hue—7.5YR or 10YR
Value—3 to 6
Chroma—3 to 6
Texture—fine sand, sand, loamy sand, or loamy fine sand

C horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—fine sand or sand

88A—Sparta loamy sand, 0 to 2 percent slopes

Setting

Landform: Stream terraces and outwash plains
Position on the landform: Summits

Map Unit Composition

Sparta and similar soils: 91 percent
Dissimilar soils: 9 percent

Minor Components

Similar soils:
- Soils that have a surface layer more than 24 inches thick
- Soils that have a surface layer less than 10 inches thick
- Soils that have more silt and clay and less sand than the Sparta soil

Dissimilar soils:
- The somewhat poorly drained Watseka soils on footslopes
- The poorly drained Orio soils in depressions
- The well drained Coyne soils on summits

Properties and Qualities of the Sparta Soil

Parent material: Sandy outwash
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 4s
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

88B—Sparta loamy sand, 1 to 6 percent slopes

Setting

Landform: Stream terraces
Position on the landform: Summits and shoulders

Map Unit Composition

Sparta and similar soils: 91 percent
Dissimilar soils: 9 percent

Minor Components

Similar soils:
- Soils that have a surface layer more than 24 inches thick
- Soils that have a surface layer less than 10 inches thick
- Soils that have more silt and clay and less sand than the Sparta soil

Dissimilar soils:
• The well drained Coyne soils on shoulders
• The somewhat poorly drained Watseka soils on summits
• The poorly drained Orio soils in depressions

Properties and Qualities of the Sparta Soil

Parent material: Outwash and/or eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 5.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Very low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 4s
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

88C—Sparta loamy sand, 6 to 12 percent slopes

Setting

Landform: Dunes
Position on the landform: Shoulders and backslopes

Map Unit Composition

Sparta and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
• Soils that are calcareous within a depth of 60 inches
• Soils that have a surface layer less than 10 inches thick
• Soils that contain more silt and clay and less sand than the Sparta soil

Dissimilar soils:
• The poorly drained Gilford soils on footslopes
• The somewhat poorly drained Watseka soils on footslopes
• The poorly drained Orio soils in depressions
• The well drained Coyne soils on summits and shoulders

Properties and Qualities of the Sparta Soil

Parent material: Sandy outwash and/or eolian sands
Drainage class: Excessively drained
Slowest permeability within a depth of 40 inches: Moderately rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 6s
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Sylvan Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Sylvan silt loam, 10 to 18 percent slopes; 140 feet east and 100 feet south of the center of sec. 34, T. 17 N., R. 8 E.; in Bureau County, Illinois; USGS Buda Northeast topographic quadrangle; lat. 41 degrees 25 minutes 55 seconds N. and long. 89 degrees 33 minutes 34 seconds W., NAD 27:

A—0 to 5 inches; very dark grayish brown (10YR 3/2) silt loam, grayish brown (10YR 5/2) dry; moderate medium and fine granular structure; friable; many very fine and fine roots; neutral; clear smooth boundary.
E—5 to 10 inches; mixed dark grayish brown (10YR 4/2) and brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; weak medium platy structure parting to moderate medium granular; friable; many very fine roots; few distinct very dark grayish brown (10YR 3/2) organic coats and light brownish gray (10YR 6/2) silt coats on faces of peds; slightly acid; clear smooth boundary.

Bt1—10 to 15 inches; brown (10YR 4/3) silty clay loam; moderate fine and very fine subangular blocky structure; friable; common very fine roots; few distinct dark brown (10YR 3/3) clay films and very few distinct light brownish gray (10YR 6/2) silt coats on faces of peds; few fine dark accumulations of iron and manganese; neutral; clear smooth boundary.

Bt2—15 to 21 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium and fine subangular blocky structure; friable; common very fine roots; common distinct brown (7.5YR 4/4) clay films on faces of peds; few fine dark accumulations of iron and manganese; slightly acid; clear smooth boundary.

Bt3—21 to 27 inches; yellowish brown (10YR 5/4) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; friable; common very fine roots; few distinct dark yellowish brown (10YR 4/4) clay films and very few distinct light brownish gray (10YR 6/2) silt coats on faces of peds; slightly effervescent; few fine dark accumulations of iron and manganese; neutral; clear smooth boundary.

Bt4—27 to 35 inches; yellowish brown (10YR 5/4) silt loam; common fine distinct yellowish brown (10YR 5/6) and few fine distinct light brownish gray (10YR 6/2) relict mottles; weak medium prismatic structure parting to moderate medium subangular blocky; friable; common very fine roots; few prominent light gray (10YR 7/2) silt coats and common faint brown (7.5YR 4/4) clay films on faces of peds; few fine dark accumulations of iron and manganese; neutral; clear smooth boundary.

BC—35 to 40 inches; yellowish brown (10YR 5/4) silt loam; common medium distinct light brownish gray (10YR 6/2) mottles; weak coarse prismatic structure parting to weak coarse subangular blocky; friable; few very fine roots; few faint dark yellowish brown (10YR 4/4) clay films on faces of peds; few fine dark accumulations of iron and manganese; few medium light-colored concretions of calcium carbonate; slightly effervescent; slightly alkaline; gradual wavy boundary.

C1—40 to 54 inches; light yellowish brown (2.5Y 6/4) silt loam; common medium distinct light brownish gray (10YR 6/2) and few fine distinct brownish yellow (10YR 6/6) mottles; appears massive but has planes of weakness; friable; few fine dark accumulations of iron and manganese; common coarse light-colored concretions of calcium carbonate; strongly effervescent; slightly alkaline; gradual wavy boundary.

C2—54 to 60 inches; brownish yellow (10YR 6/6) silt loam; few medium prominent light brownish gray (10YR 6/2) mottles; massive; friable; few fine dark accumulations of iron and manganese; violently effervescent; moderately alkaline.

Range in Characteristics

Depth to carbonates: 22 to 40 inches
Thickness of the solum: 22 to 40 inches

Ap or A horizon:
Value—4 to 6
Chroma—2 to 4
Texture—silt loam

E horizon:
Hue—10YR
Value—4 or 5
Chroma—2 to 4

Bt horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture—silty clay loam or silt loam

C and/or Cg horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—2 to 4
Texture—silt loam or silt

19D2—Sylvan silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Sylvan and similar soils: 96 percent
Dissimilar soils: 4 percent

Minor Components

Similar soils:
- Soils in which the subsoil is not calcareous within a depth of 40 inches
- Soils that have slopes of less than 10 percent
- Soils that are underlain by glacial till within a depth of 60 inches
- Soils that have sandy textures below a depth of 40 inches

Dissimilar soils:
- The somewhat poorly drained Atlas soils on shoulders and backslopes

Properties and Qualities of the Sylvan Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

19D3—Sylvan silty clay loam, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Sylvan and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
• Soils in which the subsoil is not calcareous within a depth of 40 inches
• Soils that have slopes of less than 10 percent
• Soils that are underlain by glacial till within a depth of 60 inches
• Soils that are sandy below a depth of 40 inches

Dissimilar soils:
• The somewhat poorly drained Atlas soils on backslopes

Properties and Qualities of the Sylvan Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

19F—Sylvan silt loam, 18 to 35 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Sylvan and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
• Soils in which the subsoil is not calcareous within a depth of 40 inches
• Soils that have slopes of less than 18 percent
• Soils that are underlain by glacial till within a depth of 60 inches
• Soils that have sandy textures below a depth of 40 inches

Dissimilar soils:
• The somewhat poorly drained Atlas soils on backslopes

Properties and Qualities of the Sylvan Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate

Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

962D3—Sylvan-Bold complex, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Sylvan and similar soils: 60 percent
Bold and similar soils: 30 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are not calcareous within a depth of 40 inches
- Soils that are underlain by glacial till within a depth of 60 inches
- Soils that have slopes of less than 10 percent

Dissimilar soils:
- The somewhat poorly drained Orion and Radford soils in drainageways
- The moderately well drained Elco soils on backslopes
- The somewhat poorly drained Atlas soils on backslopes

Properties and Qualities of the Sylvan Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Properties and Qualities of the Bold Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 13.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: Low for steel and low for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Sylvan—4e; Bold—4e
Prime farmland status: Not prime farmland
Hydric soil status: Sylvan—not hydric; Bold—not hydric

Tell Series

Taxonomic classification: Fine-silty over sandy or sandy-skeletal, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Tell silt loam, 0 to 2 percent slopes; 730 feet south and 2,190 feet west of the northeast corner of sec. 7, T. 18 N., R. 6 E.; in Bureau County, Illinois; USGS Yorktown topographic quadrangle; lat. 41 degrees 34 minutes 02 seconds N. and long. 89 degrees 50 minutes 55 seconds W., NAD 27:

Ap—0 to 9 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; weak medium granular structure; friable; few fine roots throughout; moderately acid; abrupt smooth boundary.

E—9 to 14 inches; brown (10YR 5/3) silt loam; moderate thin platy structure; friable; few fine roots throughout; few faint dark grayish brown (10YR 4/2) organic coats on faces of peds; moderately acid; abrupt smooth boundary.

BE—14 to 20 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable; few fine roots between peds; few faint dark brown (10YR 3/3) organic coats on faces of peds; moderately acid; clear smooth boundary.

Bt—20 to 30 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable; few fine roots between peds; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; moderately acid; clear smooth boundary.

2BC—30 to 34 inches; yellowish brown (10YR 5/4) sandy loam; moderate medium subangular blocky structure; friable; few fine roots between peds; few faint dark yellowish brown (10YR 4/4) clay films on faces of peds; moderately acid; clear smooth boundary.

2C—34 to 60 inches; yellowish brown (10YR 5/4) loamy sand; single grain; loose; moderately acid.

Range in Characteristics

Thickness of the loess: 20 to 36 inches
Thickness of the solum: 20 to 36 inches

Ap or A horizon:
Hue—10YR
Value—3 to 5
Chroma—2 to 5
Texture—silt loam

E horizon (if it occurs):
Hue—10YR
Value—4 or 5
Chroma—2 to 4
Texture—silt loam

Bt horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 or 4
Texture—silty clay loam or silt loam

2B horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 to 6
Texture—sandy loam, loam, or sandy clay loam

2C horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 8
Texture—sand or loamy sand

565A—Tell silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits

Map Unit Composition

Tell and similar soils: 92 percent
Dissimilar soils: 8 percent

Minor Components

Similar soils:
- Soils that have more sand and less silt in the upper part than the Tell soil
- Soils that have more silt and less sand in the lower part than the Tell soil
- Soils that have a darker surface layer than that of the Tell soil

Dissimilar soils:
- The somewhat poorly drained Joyce soils on footslopes
- The excessively drained Oakville soils on summits and shoulders

Properties and Qualities of the Tell Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.6 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2s
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

565B—Tell silt loam, 2 to 5 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits and shoulders

Map Unit Composition

Tell and similar soils: 93 percent
Dissimilar soils: 7 percent

Minor Components

Similar soils:
- Soils that have more sand and less silt in the upper part than the Tell soil
- Soils that have more silt and less sand in the lower part than the Tell soil
- Soils that have a darker surface layer than that of the Tell soil

Dissimilar soils:
- The somewhat poorly drained Joyce soils on footslopes
- The excessively drained Oakville soils on summits and shoulders

Properties and Qualities of the Tell Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

565C2—Tell silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Outwash plains
Position on the landform: Shoulders and backslopes

Map Unit Composition

Tell and similar soils: 92 percent
Dissimilar soils: 8 percent

Minor Components

Similar soils:
- Soils that have more sand and less silt in the upper part than the Tell soil
- Soils that have more silt and less sand in the lower part than the Tell soil
- Soils that have a darker surface layer than that of the Tell soil

Dissimilar soils:
- The excessively drained Oakville soils on summits and shoulders
- The poorly drained Thorp soils in depressions

Properties and Qualities of the Tell Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Thebes Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon (Official Series Description)

Thebes silt loam, 5 to 10 percent slopes; 1,060 feet west and 1,800 feet south of the northeast corner of sec. 3, T. 13 N., R. 3 W.; in Logan County, Illinois; USGS Aledo East topographic quadrangle; lat. 41 degrees 09 minutes 02 seconds N. and long. 90 degrees 42 minutes 30 seconds W., NAD 27:

Ap—0 to 9 inches; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; slightly acid; clear smooth boundary.

Bt1—9 to 14 inches; yellowish brown (10YR 5/4) silty clay loam; weak fine and medium subangular blocky structure; friable; few distinct brown (10YR 5/3) clay films on faces of peds; strongly acid; clear wavy boundary.

Bt2—14 to 26 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; common distinct brown (10YR 4/3) clay films on faces of peds; moderately acid; clear wavy boundary.

Bt3—26 to 31 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; common distinct brown (10YR 4/3) clay films; few medium distinct pale brown (10YR 6/3) iron depletions and few medium distinct strong brown (7.5YR 4/6) iron concentrations; common dark iron-manganese stains; slightly acid; clear wavy boundary.

2Bt4—31 to 40 inches; dark yellowish brown (10YR 4/4) loam; moderate medium subangular blocky structure; friable; few distinct brown (10YR 4/3) clay films on faces of peds; common coarse distinct pale brown (10YR 6/3) iron depletions and common coarse distinct strong brown (7.5YR 4/6) iron concentrations; common dark iron-manganese stains; slightly acid; clear wavy boundary.

2BC—40 to 50 inches; yellowish brown (10YR 5/4) and brown (7.5YR 4/4), stratified sandy loam and loamy sand; weak medium subangular blocky structure; friable; few medium distinct pale brown (10YR 6/3) iron depletions; moderately acid; clear wavy boundary.

2C—50 to 80 inches; dark yellowish brown (10YR 4/4), stratified loamy sand and sand; massive; friable; common medium and coarse distinct brown (7.5YR 4/4) iron concentrations; slightly acid.

Range in Characteristics

Thickness of the loess or silty material: 20 to 40 inches
Thickness of the solum: 25 to 55 inches

Ap or A horizon:
Hue—10YR
Value—3 to 5
Chroma—1 to 4
Texture—silt loam or silty clay loam
Reaction—slightly acid or neutral

E horizon (if it occurs):
Hue—10YR
Value—4 or 5
Chroma—3 to 6
Texture—silt loam
Reaction—moderately acid or slightly acid

Bt horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 6
Texture—silty clay loam or silt loam
Reaction—very strongly acid to slightly acid

2Bt horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—4 to 6
Texture—loam, sandy loam, fine sandy loam, sandy clay loam, or clay loam
Reaction—very strongly acid to slightly acid

2C horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—loamy sand, fine sand, loamy fine sand, or sand that has strata in some pedons
Reaction—very strongly acid to slightly acid

212B—Thebes silt loam, 2 to 5 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Thebes and similar soils: 94 percent
Dissimilar soils: 6 percent

Minor Components

Similar soils:
- Soils that have less than 20 inches of loess over the underlying loamy material
- Soils that are underlain by clayey glacial till

Dissimilar soils:
• The well drained Hickory soils on backslopes

Properties and Qualities of the Thebes Soil

Parent material: Loess over eolian sands
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

212D3—Thebes silty clay loam, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Thebes and similar soils: 100 percent

Minor Components

Similar soils:
• Soils that have less than 20 inches of loess over the underlying loamy material
• Soils that are underlain by clayey glacial till

Properties and Qualities of the Thebes Soil

Parent material: Loess over eolian sands
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: High
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Thorp Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Argiaquic Argialbolls

Typical Pedon (Official Series Description)

Thorp silt loam, 0 to 2 percent slopes; 990 feet north and 2,240 feet west of the southeast corner of sec. 27, T. 36 N., R. 5 E.; in La Salle County, Illinois; USGS Sheridan topographic quadrangle; lat. 41 degrees 33 minutes 20 seconds N. and long. 88 degrees 38 minutes 10 seconds W., NAD 27:

Ap—0 to 7 inches; black (10YR 2/1) silt loam, dark gray (10YR 4/1) dry; moderate very fine granular structure; friable; common very fine roots throughout; neutral; abrupt smooth boundary.
A—7 to 14 inches; very dark gray (10YR 3/1) silt loam, gray (10YR 5/1) dry; moderate fine granular structure; friable; common very fine roots throughout; slightly acid; abrupt smooth boundary.
Eg—14 to 19 inches; dark gray (10YR 4/1) silt loam, gray (10YR 6/1) dry; weak fine granular structure; friable; common very fine roots throughout; few fine prominent yellowish brown (10YR 5/6) iron masses in the matrix; moderately acid; clear smooth boundary.
Btg1—19 to 21 inches; mixed dark gray (10YR 4/1) and dark grayish brown (2.5Y 4/2) silty clay loam; weak fine prismatic structure parting to moderate fine subangular blocky; firm; common very fine roots between peds; many distinct very dark gray (10YR 3/1) clay films on faces of peds; few fine prominent yellowish brown (10YR 5/6) iron

masses in the matrix; moderately acid; clear smooth boundary.

Btg2—21 to 33 inches; mixed gray (5Y 5/1) and olive gray (5Y 4/2) silty clay loam; moderate medium prismatic structure parting to moderate fine and medium subangular blocky; firm; many prominent very dark gray (10YR 3/1) clay films on faces of peds; many fine prominent yellowish brown (10YR 5/6) iron masses in the matrix; moderately acid; clear smooth boundary.

Btg3—33 to 43 inches; grayish brown (2.5Y 5/2) silty clay loam; weak fine prismatic structure parting to moderate fine angular and subangular blocky; firm; many distinct very dark gray (10YR 3/1) and dark gray (N 4/0) clay films on faces of peds; common fine prominent yellowish brown (10YR 5/6) and common fine distinct light yellowish brown (2.5Y 6/4) iron masses in the matrix; slightly acid; clear smooth boundary.

2Btg4—43 to 50 inches; mixed grayish brown (10YR 5/2) and yellowish brown (10YR 5/6) sandy clay loam; weak coarse subangular blocky structure; friable; few distinct dark grayish brown (2.5Y 4/2) clay films on faces of peds; neutral; clear smooth boundary.

2Cg—50 to 65 inches; mixed grayish brown (10YR 5/2) and yellowish brown (10YR 5/8) sandy loam; massive; friable in the sandy loam portion; thin strata of sand; single grain; loose in the sand portion; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 14 inches
Thickness of the loess or silty material: 35 to 54 inches
Depth to free carbonates: More than 40 inches
Thickness of the solum: 40 to 65 inches

Ap or A horizon:
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—silty clay loam or silt loam

2Btg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 8
Texture—sandy clay loam, loam, clay loam, silt loam, or sandy loam; strata in some pedons

2Cg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 8
Texture—stratified sandy loam, sandy clay loam, clay loam, loam, silt loam, silty clay loam, sand, or loamy sand

206A—Thorp silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Footslopes

Map Unit Composition

Thorp and similar soils: 94 percent
Dissimilar soils: 6 percent

Minor Components

Similar soils:
- Soils that have more sand and less silt and clay in the lower part than the Thorp soil
- Soils that have less sand and more silt and clay in the lower part than the Thorp soil
- Soils that have a surface layer more than 24 inches thick
- Soils that are somewhat poorly drained

Dissimilar soils:
- The poorly drained Harpster soils on toeslopes
- The well drained Plano soils on shoulders
- The very poorly drained Booker soils on summits

Properties and Qualities of the Thorp Soil

Parent material: Loess over outwash
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Moderately rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11 inches to a depth of 60 inches
Content of organic matter in the surface layer: 4 to 6 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: At the surface (January through May)

Ponding depth: As much as 0.2 foot during wet periods
Flooding: None
Potential for frost action: High
Hazard of corrosion: High for steel and moderate for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Tice Series

Taxonomic classification: Fine-silty, mixed, superactive, mesic Fluvaquentic Hapludolls

Typical Pedon

Tice silty clay loam, 0 to 2 percent slopes, occasionally flooded; 1,670 feet north and 990 feet west of the southeast corner of sec. 22, T. 2 S., R. 9 W.; in Adams County, Illinois; USGS Quincy West topographic quadrangle; lat. 39 degrees 52 minutes 56 seconds N. and long. 91 degrees 25 minutes 07 seconds W., NAD 27:

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silty clay loam, grayish brown (10YR 5/2) dry; weak fine subangular blocky structure parting to weak medium granular; firm; common very fine roots throughout; neutral; abrupt smooth boundary.

A—9 to 14 inches; very dark grayish brown (10YR 3/2) silty clay loam, grayish brown (10YR 5/2) dry; moderate fine subangular blocky structure; firm; few very fine roots throughout; few fine faint brown (10YR 4/3) masses of iron in the matrix; neutral; clear smooth boundary.

BA—14 to 19 inches; dark grayish brown (10YR 4/2) silty clay loam; weak fine prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots throughout; common distinct very dark grayish brown (10YR 3/2) organic coats on faces of peds; common fine faint brown (7.5YR 4/3) masses of iron in the matrix; few fine faint grayish brown (10YR 5/2) iron depletions in the matrix; neutral; clear smooth boundary.

Bw—19 to 35 inches; brown (10YR 4/3) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots throughout; common distinct very dark grayish brown (10YR 3/2) organo-clay films on faces of peds; many medium prominent strong brown (7.5YR 4/6) masses of iron in the matrix; few fine faint grayish brown (10YR 5/2) iron depletions in the matrix; moderately acid; clear smooth boundary.

Bg1—35 to 44 inches; dark grayish brown (10YR 4/2) silty clay loam; weak medium prismatic structure parting to moderate medium subangular blocky; firm; few very fine roots throughout; common distinct very dark gray (10YR 3/1) organic coats on faces of peds; many medium prominent strong brown (7.5YR 4/6) masses of iron in the matrix; moderately acid; gradual smooth boundary.

Bg2—44 to 61 inches; dark grayish brown (2.5Y 4/2) silty clay loam; weak medium prismatic structure; firm; common distinct very dark gray (10YR 3/1) organic coats on faces of peds; common medium prominent strong brown (7.5YR 4/6) masses of iron in the matrix; slightly acid; clear smooth boundary.

Bg3—61 to 80 inches; dark grayish brown (2.5Y 4/2) silty clay loam; weak medium prismatic structure; firm; common distinct very dark gray (10YR 3/1) organic coats on faces of peds; common medium prominent strong brown (7.5YR 4/6) masses of iron in the matrix; slightly acid.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Depth to the base of soil development: 30 to more than 80 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silty clay loam or silt loam
Reaction—slightly acid to slightly alkaline

Bw or Bg horizon:
Hue—10YR or 2.5Y
Value—4 or 5
Chroma—2 to 4
Texture—silty clay loam or silt loam
Reaction—strongly acid to neutral

BC or BCg horizon:
Hue—10YR or 2.5Y
Value—4 or 5
Chroma—2 to 4
Texture—silty clay loam or silt loam
Reaction—strongly acid to neutral

Cg or C horizon:
Hue—10YR, 2.5Y, or 5Y

Value—4 to 6
Chroma—1 to 3
Texture—stratified silty clay loam, clay loam, loam, sandy loam, or silt loam; thin strata of fine sand in some pedons
Reaction—strongly acid to slightly alkaline

3284A—Tice silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform: Flood plains

Map Unit Composition

Tice and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that have a seasonal high water table at the surface
- Soils that are slightly higher than the Tice soil and that are subject to less frequent flooding

Dissimilar soils:
- The well drained Plano soils on adjacent low terrace summits and shoulders

Properties and Qualities of the Tice Soil

Parent material: Alluvium
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 3 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 0.5 foot (January through May)
Frequency of flooding: Frequent (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where protected from flooding or not frequently flooded during the growing season
Hydric soil status: Not hydric

8284A—Tice silty clay loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains

Map Unit Composition

Tice and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that are poorly drained
- The somewhat poorly drained Elburn soils on adjacent low terrace summits

Dissimilar soils:
- The poorly drained Beaucoup soils on flood plains
- The well drained Plano soils on adjacent low terrace summits and shoulders

Properties and Qualities of the Tice Soil

Parent material: Alluvium
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 12.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: Moderate
Depth and months of highest apparent seasonal high water table: 1 foot (January through May)
Frequency of flooding: Occasional (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Very slight

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Timula Series

Taxonomic classification: Coarse-silty, mixed, superactive, mesic Typic Eutrudepts

Typical Pedon

Timula silt loam, in an area of Seaton-Timula silt loams, 18 to 30 percent slopes, eroded; 1,080 feet east and 2,000 feet south of the northwest corner of sec. 29, T. 22 N., R. 5 E.; in Whiteside County, Illinois; USGS Morrison topographic quadrangle; lat. 41 degrees 52 minutes 03 seconds N. and long. 89 degrees 57 minutes 19 seconds W., NAD 27:

Ap—0 to 6 inches; brown (10YR 4/3) silt loam, pale brown (10YR 6/3) dry; weak fine subangular blocky structure parting to weak medium granular; friable; few fine roots throughout; few dark yellowish brown (10YR 4/4) fragments of subsoil material; neutral; abrupt smooth boundary.

Bw1—6 to 12 inches; yellowish brown (10YR 5/4) silt loam; moderate medium and fine subangular blocky structure; friable; few fine roots between peds; few faint brown (10YR 4/3) organic coats and dark yellowish brown (10YR 4/4) films on faces of peds; neutral; clear smooth boundary.

Bw2—12 to 23 inches; yellowish brown (10YR 5/4) silt loam; weak coarse and medium subangular blocky structure; friable; few fine roots between peds; common faint dark yellowish brown (10YR 4/4) films on faces of peds; neutral; clear smooth boundary.

BC—23 to 28 inches; yellowish brown (10YR 5/4) silt loam; weak coarse angular blocky structure; friable; few fine distinct yellowish brown (10YR 5/6) iron oxide masses in the matrix and light brownish gray (10YR 6/2) iron depletions; slightly effervescent; slightly alkaline; gradual smooth boundary.

C—28 to 60 inches; light yellowish brown (2.5Y 6/4) silt loam; massive; friable; common fine prominent yellowish brown (10YR 5/6) iron masses in the matrix and common fine distinct light gray (10YR 7/2) iron depletions; few fine soft masses of iron; strongly effervescent; slightly alkaline.

Range in Characteristics

Thickness of the solum: 18 to 40 inches
Depth to carbonates: 18 to 40 inches

Ap or A horizon:
Hue—10YR
Value—3 or 4
Chroma—1 to 3
Texture—silt loam or silt

E horizon (if it occurs):
Hue—10YR
Value—4 or 5
Chroma—2 to 4
Texture—silt loam or silt

Bw horizon:
Hue—10YR
Value—4 to 6
Chroma—3 to 6
Texture—silt loam or silt

BC, Bk, or C horizon:
Hue—10YR, 2.5Y, or 5Y
Value—5 or 6
Chroma—2 to 4
Texture—silt loam or silt

911G—Timula-Hickory silt loams, 35 to 60 percent slopes

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Timula and similar soils: 55 percent
Hickory and similar soils: 30 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that are not calcareous within a depth of 60 inches

Dissimilar soils:
- The well drained Marseilles soils on backslopes
- The somewhat poorly drained Orion soils in drainageways

Properties and Qualities of the Timula Soil

Parent material: Loess
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 11.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: High

Hazard of corrosion: Low for steel and low for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Properties and Qualities of the Hickory Soil

Parent material: Loamy till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 2 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: Timula—7e; Hickory—7e
Prime farmland status: Not prime farmland
Hydric soil status: Timula—not hydric; Hickory—not hydric

Titus Series

Taxonomic classification: Fine, smectitic, mesic Vertic Endoaquolls

Typical Pedon

Titus silty clay loam, 0 to 2 percent slopes, frequently flooded; 20 feet west and 10 feet north of the southeast corner of sec. 28, T. 20 N., R. 3 E.; in Henry County, Illinois; USGS Erie Northwest topographic quadrangle; lat. 41 degrees 41 minutes 10 seconds N. and long. 90 degrees 09 minutes 01 second W., NAD 27:

Ap—0 to 8 inches; black (10YR 2/1) silty clay loam, very dark gray (10YR 3/1) dry; weak medium subangular blocky structure parting to moderate fine granular; friable; few fine roots throughout; neutral; abrupt smooth boundary.

A1—8 to 17 inches; very dark gray (10YR 3/1) silty clay loam, dark gray (10YR 4/1) dry; moderate medium and fine subangular blocky structure; friable; few fine roots throughout; many faint black (10YR 2/1) organic coats on faces of peds; few prominent dark brown (7.5YR 3/4) concretions of iron throughout; neutral; clear smooth boundary.

A2—17 to 22 inches; very dark gray (10YR 3/1) silty clay loam, dark gray (10YR 4/1) dry; strong medium and fine angular blocky structure; firm; few fine roots between peds; many faint black (10YR 2/1) organic coats on faces of peds; few prominent reddish brown (5YR 4/4) soft masses of iron and few prominent dark brown (7.5YR 3/4) concretions of iron throughout; neutral; clear smooth boundary.

Bg1—22 to 32 inches; dark gray (10YR 4/1) silty clay; strong medium and fine prismatic structure; firm; few faint very dark gray (10YR 3/1) organic coats and few prominent dark brown (7.5YR 3/4) coats of iron-manganese on faces of peds; few prominent reddish brown (5YR 4/4) soft masses of iron and dark brown (7.5YR 3/4) concretions of iron in the matrix; few fine prominent strong brown (7.5YR 5/6) iron masses in the matrix; neutral; clear smooth boundary.

Bg2—32 to 46 inches; dark gray (10YR 4/1) silty clay loam; moderate medium prismatic structure parting to moderate coarse subangular blocky; firm; few faint very dark gray (10YR 3/1) organic coats on faces of peds; strata of mixed dark gray (10YR 4/1) and strong brown (7.5YR 5/6) silty clay loam 1 inch thick at a depth of 39 inches; common fine prominent strong brown (7.5YR 5/6) iron masses in the matrix; neutral; clear smooth boundary.

Bg3—46 to 52 inches; grayish brown (2.5Y 5/2) silty clay loam; moderate coarse and medium subangular blocky structure; friable; few distinct pressure faces; common fine prominent strong brown (7.5YR 4/6 and 5/6) and yellowish brown (10YR 5/4) iron masses in the matrix; neutral; clear smooth boundary.

BCg—52 to 60 inches; stratified grayish brown (2.5Y 5/2) silty clay loam and clay loam; weak coarse angular blocky structure; friable; few fine distinct dark gray (10YR 4/1) iron depletions and common medium prominent strong brown (7.5YR 4/6) and common fine prominent yellowish brown (10YR 5/4) iron masses in the matrix; few prominent dark brown (7.5YR 3/4) concretions of iron throughout; neutral; clear smooth boundary.

Cg—60 to 80 inches; stratified grayish brown (2.5Y 5/2) silty clay loam and clay loam; massive; friable; few fine distinct dark gray (10YR 4/1) iron depletions and common medium prominent strong brown (7.5YR 4/6) and common fine prominent yellowish brown (10YR 5/4) iron oxide masses in the matrix; few hard masses of iron; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the solum: 35 to 60 inches

Ap or A horizon:
Hue—10YR, 5Y, or N
Value—2 or 3
Chroma—0 to 2
Texture—silty clay loam or silty clay

Bg horizon:
Hue—10YR, 2.5Y, 5Y, or N
Value—4 to 6
Chroma—0 to 2
Texture—silty clay loam or silty clay

BCg and/or Cg horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 6
Chroma—1 or 2
Texture—silty clay loam; thin strata in some pedons

7404A—Titus silty clay loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform: Flood plains

Map Unit Composition

Titus and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have a surface layer more than 24 inches thick
- Soils that contain less clay than the Titus soil
- Soils that are calcareous in the lower part

Dissimilar soils:
- The moderately well drained Medway soils on flood plains

Properties and Qualities of the Titus Soil

Parent material: Alluvium
Drainage class: Poorly drained
Slowest permeability within a depth of 40 inches: Slow
Permeability below a depth of 60 inches: Moderately slow
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.7 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 4 percent
Shrink-swell potential: High
Depth and months of highest apparent seasonal high water table: At the surface (January through May)
Ponding depth: As much as 0.2 foot during wet periods
Frequency of flooding: Rare (November through June)
Potential for frost action: High
Hazard of corrosion: High for steel and low for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Moderate

Interpretive Groups

Land capability classification: 3w
Prime farmland status: Prime farmland where drained
Hydric soil status: Hydric

Velma Series

Taxonomic classification: Fine-loamy, mixed, superactive, mesic Typic Argiudolls

Typical Pedon

Velma silt loam, 10 to 18 percent slopes, eroded; 1,880 feet north and 260 feet east of the southwest corner of sec. 25, T. 14 N., R. 3 E.; in Henry County, Illinois; USGS Galva topographic quadrangle; lat. 41 degrees 10 minutes 12 seconds N. and long. 90 degrees 06 minutes 52 seconds W., NAD 27:

Ap—0 to 10 inches; very dark gray (10YR 3/1) and dark brown (10YR 3/3) silt loam, dark grayish brown (10YR 4/2) dry; weak fine and medium granular structure; friable; strongly acid; abrupt smooth boundary.
AB—10 to 13 inches; dark brown (10YR 3/3) and very dark gray (10YR 3/1) silt loam, grayish brown (10YR 5/2) and brown (10YR 5/3) dry; weak medium subangular blocky structure parting to weak fine and medium granular; friable; strongly acid; clear smooth boundary.
2Bt1—13 to 18 inches; dark yellowish brown (10YR 4/4) and yellowish brown (10YR 5/6) clay loam; weak medium subangular blocky structure; friable; prominent dark grayish brown (10YR 4/2) clay films; prominent very dark grayish brown (10YR

3/2) organic coats; strongly acid; abrupt smooth boundary.

2Bt2—18 to 22 inches; yellowish brown (10YR 5/6 and 5/8) clay loam; weak medium subangular blocky structure; friable; prominent brown (10YR 4/3) clay films; strongly acid; clear smooth boundary.

2Bt3—22 to 27 inches; yellowish brown (10YR 5/4) clay loam; moderate medium subangular blocky structure; friable; prominent brown (10YR 4/3) clay films; few fine faint brownish yellow (10YR 6/8) iron accumulations; neutral; clear smooth boundary.

2Bt4—27 to 34 inches; yellowish brown (10YR 5/4 and 5/6) clay loam; moderate medium and coarse subangular and angular blocky structure; firm; prominent brown (10YR 4/3) clay films; few medium distinct light brownish gray (10YR 6/2) iron depletions; neutral; clear smooth boundary.

2BC—34 to 44 inches; pale brown (10YR 6/3) and yellowish brown (10YR 5/6) clay loam; moderate medium and coarse angular blocky structure; firm; neutral; clear smooth boundary.

2C—44 to 60 inches; yellowish brown (10YR 5/4 and 5/6) clay loam; massive; firm; few fine distinct light gray (5Y 7/1) iron depletions; slightly alkaline.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 24 inches
Thickness of the loess: 0 to 20 inches
Thickness of the solum: 42 to more than 60 inches
Depth to carbonates: 42 to 60 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—silt loam or loam

Bt or 2Bt horizon:
Hue—7.5YR or 10YR
Value—4 or 5
Chroma—3 to 8
Texture—clay loam or loam

C or 2C horizon:
Hue—7.5YR or 10YR
Value—5 or 6
Chroma—3 to 8
Texture—clay loam, loam, or sandy loam

250C2—Velma silt loam, 5 to 10 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders

Map Unit Composition

Velma and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
• Soils that have more clay in the lower part than the Velma soil
• Soils that have a lighter colored or thinner surface layer than that of the Velma soil

Dissimilar soils:
• The somewhat poorly drained Radford soils in drainageways

Properties and Qualities of the Velma Soil

Parent material: Till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 6.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and high for concrete
Surface runoff class: Medium
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

250D2—Velma silt loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Velma and similar soils: 92 percent
Dissimilar soils: 8 percent

Minor Components

Similar soils:
- Soils that have more clay in the lower part than the Velma soil
- Soils that have a lighter colored or thinner surface layer than that of the Velma soil

Dissimilar soils:
- The somewhat poorly drained Radford soils in drainageways

Properties and Qualities of the Velma Soil

Parent material: Till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: High for steel and high for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

250E2—Velma silt loam, 18 to 25 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes

Map Unit Composition

Velma and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that have more clay in the lower part than the Velma soil
- Soils that have a lighter colored or thinner surface layer than that of the Velma soil

Dissimilar soils:
- The somewhat poorly drained Radford soils in drainageways

Properties and Qualities of the Velma Soil

Parent material: Till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 9 inches to a depth of 60 inches
Content of organic matter in the surface layer: 3 to 4 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: High
Hazard of corrosion: High for steel and high for concrete
Surface runoff class: High
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Watseka Series

Taxonomic classification: Sandy, mixed, mesic Aquic Hapludolls

Typical Pedon

Watseka loamy fine sand, 0 to 2 percent slopes; 2,520 feet west and 2,280 feet north of the southeast corner of sec. 33, T. 19 N., R. 5 4.; in Whiteside County, Illinois; USGS Hooppole topographic quadrangle; lat. 41 degrees 35 minutes 24 seconds N. and long. 89 degrees 55 minutes 46 seconds W., NAD 27:

Ap—0 to 10 inches; black (10YR 2/1) loamy fine sand, very dark gray (10YR 3/1) dry; weak fine subangular blocky structure parting to weak fine granular; very friable; few fine roots throughout; neutral; abrupt smooth boundary.
AB—10 to 18 inches; very dark grayish brown (10YR 3/2) loamy sand, grayish brown (10YR 5/2) dry;

weak medium and fine subangular blocky structure; very friable; few fine roots throughout; common faint very dark brown (10YR 2/2) organic coats on faces of peds; slightly acid; clear smooth boundary.

Bw—18 to 24 inches; dark grayish brown (10YR 4/2) loamy sand; weak medium and fine subangular blocky structure; very friable; few fine roots throughout; neutral; gradual smooth boundary.

C1—24 to 47 inches; grayish brown (10YR 5/2) sand; single grain; loose; few medium faint dark grayish brown (10YR 4/2) iron depletions; common fine distinct yellowish brown (10YR 5/6) and brownish yellow (10YR 6/6) iron masses in the matrix; neutral; gradual smooth boundary.

C2—47 to 60 inches; light brownish gray (10YR 6/2) sand; single grain; loose; few fine distinct yellowish brown (10YR 5/6) iron masses in the matrix; few fine pebbles; neutral.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches
Thickness of the solum: 24 to 36 inches

Ap horizon:
Hue—10YR
Value—2 or 3
Chroma—1 to 3
Texture—loamy fine sand, loamy sand, or sand

Bw horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 7
Chroma—2 to 4
Texture—loamy fine sand, loamy sand, fine sand, or sand

C horizon:
Hue—10YR, 2.5Y, or 5Y
Value—4 to 7
Chroma—1 to 4
Texture—loamy fine sand, loamy sand, fine sand, or sand

49A—Watseka loamy fine sand, 0 to 2 percent slopes

Setting

Landform: Outwash plains and stream terraces
Position on the landform: Footslopes

Map Unit Composition

Watseka and similar soils: 85 percent
Dissimilar soils: 15 percent

Minor Components

Similar soils:
- Soils that have a surface layer less than 10 inches thick
- Soils that have a seasonal high water table at a depth of less than 1 foot or more than 3 feet

Dissimilar soils:
- The excessively drained Oakville soils on summits and shoulders
- The excessively drained Sparta soils on summits

Properties and Qualities of the Watseka Soil

Parent material: Outwash and/or eolian sands
Drainage class: Somewhat poorly drained
Slowest permeability within a depth of 40 inches: Rapid
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 5.3 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Low
Depth and months of highest perched seasonal high water table: 1 foot (January through May)
Flooding: None
Potential for frost action: Moderate
Hazard of corrosion: Low for steel and high for concrete
Surface runoff class: Negligible
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: High

Interpretive Groups

Land capability classification: 3s
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

Waukegan Series

Taxonomic classification: Fine-silty over sandy or sandy-skeletal, mixed, superactive, mesic Typic Hapludolls
Taxadjunct features: The Waukegan soil in map unit 564B2 has a thinner dark surface layer than is defined as the range for the series. This soil is classified as a Dystric Eutrudept.

Typical Pedon

Waukegan silt loam, 0 to 2 percent slopes; 1,744 feet north and 450 feet east of the southwest corner of sec. 31, T. 18 N., R. 7 E.; in Bureau County, Illinois; USGS

New Bedford topographic quadrangle; lat. 41 degrees 30 minutes 04 seconds N. and long. 89 degrees 44 minutes 29 seconds W., NAD 27:

Ap—0 to 9 inches; very dark brown (10YR 2/2) silt loam, dark grayish brown (10YR 4/2) dry; moderate fine granular structure; friable; common very fine roots throughout; moderately acid; abrupt smooth boundary.
A—9 to 17 inches; very dark brown (10YR 2/2) silt loam, dark grayish brown (10YR 4/2) dry; moderate fine subangular blocky structure parting to moderate medium granular; friable; common very fine roots throughout; slightly acid; clear smooth boundary.
Bt1—17 to 22 inches; brown (10YR 4/3) silt loam; moderate medium subangular blocky structure; friable; common very fine roots between peds; few faint very dark brown (10YR 2/2) and dark brown (10YR 3/3) clay films on faces of peds; slightly acid; clear smooth boundary.
Bt2—22 to 30 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable; few very fine roots between peds; many faint dark yellowish brown (10YR 4/4) clay films on faces of peds; slightly acid; abrupt smooth boundary.
2BC—30 to 34 inches; yellowish brown (10YR 5/4) sandy loam; weak medium subangular blocky structure; friable; few very fine roots between peds; common faint dark yellowish brown (10YR 4/4) clay films on faces of peds; moderately acid; abrupt smooth boundary.
2C—34 to 60 inches; yellowish brown (10YR 5/4) sand; single grain; loose; about 32 percent pebbles and cobblestones; strong brown (7.5YR 5/6) iron bands between depths of 45 and 47 inches; slightly acid.

Range in Characteristics

Thickness of the mollic epipedon: 10 to 20 inches
Thickness of the loess: 20 to 40 inches
Depth to sand and gravel: 20 to 40 inches
Depth to free carbonates: 40 to 70 inches
Thickness of the solum: 30 to 60 inches

Ap or A horizon:
Hue—10YR
Value—2 or 3
Chroma—1 or 2
Texture—silt loam

Bt horizon:
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—3 to 5
Texture—silt loam

2B horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—3 to 6
Texture—coarse sand, sand, loamy coarse sand, loamy sand, or sandy loam

2C horizon:
Hue—7.5YR, 10YR, or 2.5Y
Value—4 to 6
Chroma—2 to 6
Texture—sand or coarse sand

564A—Waukegan silt loam, 0 to 2 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits

Map Unit Composition

Waukegan and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
• Soils that have a lighter colored surface layer than that of the Waukegan soil
• Soils that have more sand and less silt in the upper part than the Waukegan soil
• Soils that have less sand in the lower part than the Waukegan soil

Dissimilar soils:
• The somewhat poorly drained Joyce soils on footslopes

Properties and Qualities of the Waukegan Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 7.5 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 5 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low

Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2s
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

564B—Waukegan silt loam, 2 to 5 percent slopes

Setting

Landform: Outwash plains
Position on the landform: Summits and shoulders

Map Unit Composition

Waukegan and similar soils: 95 percent
Dissimilar soils: 5 percent

Minor Components

Similar soils:
- Soils that have a lighter colored surface layer than that of the Waukegan soil
- Soils that have more sand and less silt in the upper part than the Waukegan soil
- Soils that have less sand in the lower part than the Waukegan soil

Dissimilar soils:
- The somewhat poorly drained Joyce soils on footslopes

Properties and Qualities of the Waukegan Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 8.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 5 percent
Shrink-swell potential: Low
Flooding: None
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Moderate
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Not hydric

564B2—Waukegan silt loam, 2 to 5 percent slopes, eroded

Setting

Landform: Outwash plains
Position on the landform: Shoulders

Map Unit Composition

Waukegan and similar soils: 97 percent
Dissimilar soils: 3 percent

Minor Components

Similar soils:
- Soils that have a lighter colored surface layer than that of the Waukegan soil
- Soils that have more sand and less silt in the upper part than the Waukegan soil
- Soils that have less sand in the lower part than the Waukegan soil

Dissimilar soils:
- The somewhat poorly drained Joyce soils on footslopes

Properties and Qualities of the Waukegan Soil

Parent material: Loess over outwash
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Rapid
Depth to restrictive feature: More than 80 inches
Available water capacity: About 6.1 inches to a depth of 60 inches
Content of organic matter in the surface layer: 2 to 5 percent
Shrink-swell potential: Low
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: Low
Hazard of corrosion: Low for steel and moderate for concrete
Surface runoff class: Low
Susceptibility to water erosion: Slight
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 2e

Prime farmland status: Prime farmland
Hydric soil status: Not hydric

Westville Series

Taxonomic classification: Fine-loamy, mixed, superactive, mesic Typic Hapludalfs

Typical Pedon

Westville loam, 10 to 18 percent slopes, eroded; 180 feet west and 1,920 feet north of the southeast corner of sec. 3, T. 14 N., R. 1 E.; in Henry County, Illinois; USGS Woodhull topographic quadrangle; lat. 41 degrees 13 minutes 47 seconds N. and long. 90 degrees 21 minutes 40 seconds W., NAD 27:

Ap—0 to 5 inches; mixed dark brown (10YR 3/3) and dark grayish brown (10YR 4/2) loam, mixed grayish brown (10YR 5/2) and brown (10YR 5/3) dry; moderate fine granular structure; friable; slightly acid; clear smooth boundary.
BA—5 to 9 inches; mixed brown (10YR 4/3) and dark brown (10YR 3/3) clay loam; moderate fine subangular blocky structure parting to moderate fine and medium granular; friable; moderately acid; clear smooth boundary.
Bt1—9 to 15 inches; brown (7.5YR 4/4) clay loam; weak medium prismatic structure parting to moderate fine subangular blocky; friable; common moderately thick brown (7.5YR 4/2) clay films on faces of peds; moderately acid; clear smooth boundary.
Bt2—15 to 23 inches; brown (7.5YR 4/4) clay loam; weak medium prismatic structure parting to weak fine and medium subangular blocky; firm; many moderately thick reddish brown (5YR 4/4) clay films on faces of peds; few dark stains of iron and manganese; strongly acid; gradual smooth boundary.
Bt3—23 to 35 inches; reddish brown (5YR 4/4) clay loam; weak medium prismatic structure parting to weak medium subangular blocky; firm; common moderately thick reddish brown (5YR 4/3) clay films on faces of peds; few dark stains of iron and manganese; moderately acid; gradual smooth boundary.
Bt4—35 to 45 inches; yellowish red (5YR 4/6) sandy clay loam; weak medium prismatic structure parting to weak fine and medium subangular blocky; firm; common moderately thick reddish brown (5YR 4/4) clay films on faces of peds; moderately acid; gradual smooth boundary.
BC1—45 to 58 inches; strong brown (7.5YR 5/6) sandy clay loam; weak medium subangular and angular blocky structure; firm; strongly acid; gradual smooth boundary.
BC2—58 to 60 inches; strong brown (7.5YR 5/6) sandy clay loam; weak fine and medium subangular blocky structure; firm; moderately acid.

Range in Characteristics

Thickness of the solum: 48 to more than 60 inches
Thickness of the loess: Less than 15 inches

Ap or A horizon:
Hue—10YR
Value—2 to 4
Chroma—2 or 3
Texture—loam or silt loam

E horizon (if it occurs):
Hue—10YR
Value—4 to 6
Chroma—2 to 4
Texture—loam or silt loam

Bt and BC horizons:
Hue—5YR, 7.5YR, or 10YR
Value—3 to 6
Chroma—3 or 4
Texture—clay loam or sandy clay loam

C horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 6
Texture—sandy loam or loam

22D2—Westville loam, 10 to 18 percent slopes, eroded

Setting

Landform: Ground moraines
Position on the landform: Backslopes and shoulders

Map Unit Composition

Westville and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have more clay in the surface layer or in the subsoil than the Westville soil
- Soils that have more than 20 inches of loess on the surface

Dissimilar soils:
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Westville Soil

Parent material: Paleosol that formed in till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.4 inches to a depth of 60 inches
Content of organic matter in the surface layer: 1 to 3 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer has been thinned by erosion.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

22D3—Westville clay loam, 10 to 18 percent slopes, severely eroded

Setting

Landform: Ground moraines
Position on the landform: Shoulders and backslopes

Map Unit Composition

Westville and similar soils: 90 percent
Dissimilar soils: 10 percent

Minor Components

Similar soils:
- Soils that have less clay in the surface layer than the Westville soil

Dissimilar soils:
- The somewhat poorly drained Orion and Radford soils in drainageways

Properties and Qualities of the Westville Soil

Parent material: Paleosol that formed in till
Drainage class: Well drained
Slowest permeability within a depth of 40 inches: Moderate
Permeability below a depth of 60 inches: Moderate
Depth to restrictive feature: More than 80 inches
Available water capacity: About 10.2 inches to a depth of 60 inches
Content of organic matter in the surface layer: 0.5 to 1.0 percent
Shrink-swell potential: Moderate
Flooding: None
Accelerated erosion: The surface layer is mostly subsoil material.
Potential for frost action: Moderate
Hazard of corrosion: Moderate for steel and moderate for concrete
Surface runoff class: Medium
Susceptibility to water erosion: High
Susceptibility to wind erosion: Slight

Interpretive Groups

Land capability classification: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Not hydric

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 forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment 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 pasture is suggested in this section. The estimated yields of the main crops 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 the detailed information given in the description of each soil under the heading “Soil Series and Detailed Soil Map Units.” Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Crop Yield Estimates

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 6. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of the soils also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents (Fehrenbacher and others, 1978). 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; 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 relative productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the table are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Pasture yields.—Under good management, proper grazing is essential for the production of high-quality forage, stand survival, and erosion control. Proper grazing helps plants to maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control generally is needed. Rotation grazing and renovation also are important management practices.

Yield estimates are often provided in animal unit months (AUM), or the amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about forage yields other than those shown in table 6.

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 landshaping 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 forestland 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, soybeans, small grain, and hay. 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 forestland. 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. The local office of the Cooperative Extension Service or the Natural Resources Conservation Service can provide guidance on the use of these soils as cropland.

Areas in class 8 are generally not suited to crops, pasture, or forestland without a level of management that is impractical. These areas may have potential for other uses, such as recreational facilities and wildlife habitat.

Capability subclasses identify the dominant kind of limitation in the class. They are designated by adding a small letter, *e, w, s,* or *c,* to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless a close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c,* used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class 1 because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w, s,* or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, forestland, wildlife habitat, or recreation.

The capability classification of the soils in the survey area is given in table 6.

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, should encourage and facilitate the wise use of our Nation's prime farmland.

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

Prime farmland soils may presently be used as cropland, pasture, or forestland or for other purposes. They either are used for food and fiber or are available for these uses. Urban or built-up land, public land, and water areas cannot be considered prime farmland. Urban or built-up land is any contiguous unit of land 10 acres or more in size that is used for such purposes as housing, industrial, and commercial sites, sites for institutions or public buildings, small parks, golf courses, cemeteries, railroad yards, airports, sanitary landfills, sewage treatment plants, and water-control structures. Public land is land not available for farming in national forests, national parks, military reservations, and state parks.

Prime farmland soils commonly receive an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable, and the level of acidity or alkalinity and the content of salts and sodium are acceptable. The soils have few, if any, rocks and are permeable to water and air. They are not excessively erodible or saturated with water for long periods, and they are not frequently flooded during the growing season or are protected from flooding. Slopes range mainly from 0 to 6 percent.

Soils that have a high water table, are subject to flooding, or are droughty may qualify as prime farmland where these limitations are overcome by drainage measures, flood control, or irrigation. 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 384,912 acres in the survey area, or about 73 percent of the total acreage, meets the soil requirements for prime farmland.

The map units in the survey area that meet the criteria 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 detailed soil maps. The soil qualities that affect use and management are described in the section "Soil Series and Detailed Soil Map Units."

Forestland Management and Productivity

The tables in this section can help forest owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood crops and rate the soils according to the limitations that affect various aspects of forestland management.

Forestland Productivity

In table 8, 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 forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forestland Management

In tables 9a through 9e, interpretive ratings are given for various aspects of forestland management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified forestland management practice. *Well suited* indicates that the soil has features that are favorable for the specified practice and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified practice. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified practice. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified practice or that extreme measures are needed to overcome the undesirable soil properties.

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 specified forest management practice (1.00) and the point at which the soil feature is not a limitation (0.00).

Rating class terms for fire damage and seedling mortality are expressed as *low, moderate,* and *high*. Where these terms are used, the numerical ratings indicate gradations between the point at which the potential for fire damage or seedling mortality is highest (1.00) and the point at which the potential is lowest (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils for forestland management practices. More detailed information about the criteria used in the ratings is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

For *limitations affecting construction of haul roads and log landings*, the ratings are based on slope, flooding, permafrost, plasticity index, the hazard of soil slippage, content of sand, the Unified classification, rock fragments on or below the surface, depth to a restrictive layer that is indurated, depth to a water table, and ponding. The limitations are described as slight, moderate, or severe. A rating of *slight* indicates that no significant limitations affect construction activities, *moderate* indicates that one or more limitations can cause some difficulty in construction, and *severe* indicates that one or more limitations can make construction very difficult or very costly.

The ratings of *suitability for log landings* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The soils are described as well suited, moderately suited, or poorly suited to use as log landings.

Ratings in the column *soil rutting hazard* are based on depth to a water table, rock fragments on or below the surface, the Unified classification, depth to a restrictive layer, and slope. Ruts form as a result of the operation of forest equipment. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that the soil is subject to little or no rutting, *moderate* indicates that rutting is likely, and *severe* indicates that ruts form readily.

Ratings in the column *hazard of off-road or off-trail erosion* are based on slope and on soil erodibility factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance. The hazard is described as slight, moderate, severe, or very severe. A rating of *slight* indicates that erosion is unlikely under ordinary climatic conditions; *moderate* indicates that some erosion is likely and that erosion-control measures may be needed; *severe* indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and *very severe* indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Ratings in the column *hazard of erosion on roads and trails* are based on the soil erodibility factor K, slope, and content of rock fragments. The ratings apply to unsurfaced roads and trails. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that little or no erosion is likely; *moderate* indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and *severe* indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Ratings in the column *suitability for roads (natural surface)* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The ratings indicate the suitability for using the natural surface of the soil for roads. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the columns *suitability for hand planting* and *suitability for mechanical planting* are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, moderately suited, poorly suited, or unsuited to these methods of planting. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column *suitability for use of harvesting equipment* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, and ponding. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the column *suitability for mechanical site preparation (surface)* are based on slope, depth to a restrictive layer, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 1 foot is considered in the ratings.

Ratings in the column *suitability for mechanical site preparation (deep)* are based on slope, depth to a restrictive layer, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 3 feet is considered in the ratings.

Ratings in the column *potential for damage to soil by fire* are based on texture of the surface layer, content of rock fragments and organic matter in the surface layer, thickness of the surface layer, and slope. The soils are described as having a low, moderate, or high potential for this kind of damage. The ratings indicate an evaluation of the potential impact of prescribed fires or wildfires that are intense enough to remove the duff layer and consume organic matter in the surface layer.

Ratings in the column *potential for seedling mortality* are based on flooding, ponding, depth to a water table, content of lime, reaction, salinity, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. The soils are described as having a low, moderate, or high potential for seedling mortality.

Windbreaks and Environmental Plantings

Windbreaks protect livestock, buildings, yards, fruit trees, gardens, and cropland from wind and snow; help to keep snow on fields; and provide food and cover for wildlife. 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.

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.

Table 10 shows the height that locally grown trees and shrubs are expected to reach in 20 years on various soils. The estimates in table 10 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 the local office of the Natural Resources Conservation Service or of the Cooperative Extension Service or from a commercial nursery.

Recreation

The soils of the survey area are rated in tables 11a and 11b 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 11a and 11b 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 water table, 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 water table, 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 water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, 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 water table, 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 water table; 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 water table, 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 12, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of grain and seed crops are corn, soybeans, wheat, oats, and barley.

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

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of wild herbaceous plants are bluestems, indiangrass, blueberry, goldenrod, 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, cherry, birch, maple, green ash, willow, and American elm.

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, fir, cedar, and tamarack.

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

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

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are ducks, geese, herons, shore birds, muskrat, mink, and beaver.

Hydric Soils

In this section, hydric soils are defined and described and the hydric soils in the survey area are listed.

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for each of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 1995). These criteria are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in “Soil Taxonomy” (Soil Survey Staff, 1999) and “Keys to Soil Taxonomy” (Soil Survey Staff, 1998) and in the “Soil Survey Manual” (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in “Field Indicators of Hydric Soils in the United States” (Hurt and others, 1998).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

Table 13 lists the hydric characteristics of the soils in Henry County. It identifies hydric soils and also nonhydric soils that may have hydric inclusions. This information can help in planning land uses on a specific site; however, onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils (National Research Council, 1995; Hurt and others, 1998).

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading “Soil Properties.”

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, earthfill, and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Tables 14a and 14b show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, 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 water table, 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 water table, 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 water table, 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 water table, 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 water table, 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 the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, 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 water table; 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 water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

Table 15 shows 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 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).

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 water table, 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 water table, 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 the water table 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 water table, 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 water table, 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 the water table 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 water table, 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 the water table 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

Table 16 gives information about the soils as potential sources of reclamation material, roadfill, topsoil, and sand. Normal compaction, minor processing, and other standard construction practices are assumed.

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

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

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, 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 water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, 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.

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. Because all of the soils in Henry County are poor sources of gravel, this interpretation is not included in table 16. In the table, 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 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, the soil is considered a likely source regardless of thickness. The assumption is that the sand layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good, fair,* or *poor* as potential sources of 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. 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.

Water Management

Tables 17a and 17b give 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; aquifer-fed excavated ponds; constructing grassed waterways and surface drains; constructing terraces and diversions; and tile drains and underground outlets. 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).

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 high water table 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 permanent water table, 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.

Grassed waterways and surface drains are natural or constructed channels, generally broad and shallow, that conduct surface water to outlets at a nonerosive velocity. Large stones, wetness, slope, and depth to bedrock affect the construction of grassed waterways and surface drains. A hazard of wind erosion, a low available water capacity, restricted rooting depth, toxic substances such as salts and sodium, and restricted permeability adversely affect the growth and maintenance of the grass after construction.

Terraces and diversions are embankments or a combination of channels and ridges constructed across a slope to control erosion and conserve moisture by intercepting runoff. Slope, wetness, large stones, and depth to bedrock affect the construction of terraces and diversions. A restricted rooting depth, a severe hazard of wind erosion or water erosion, an excessively coarse texture, and restricted permeability adversely affect maintenance.

Tile drains and underground outlets are used in some areas to remove excess subsurface and surface water from the soil. The ratings in the table apply to the soil in its undisturbed condition and do not include consideration of current land use. Depth to bedrock, a dense layer, or a cemented pan, the content of large stones, and the content of clay influence the ease of digging, filling, and compacting. A seasonal high water table, ponding, and flooding may restrict the period when excavations can be made. The slope influences the use of machinery. Soil texture and depth to the water table influence the resistance to sloughing. Subsidence of organic layers influences grade and stability of tile drains.

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 18 gives the engineering classifications and the range of index properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. “Loam,” for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, “gravelly.” Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2001) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of particle-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

Physical Properties

Table 19 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.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In the table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, 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 content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $^1/_3$- or $^1/_{10}$-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability (K_{sat}) 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 19, 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 19 as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. Descriptions of these groups are available in the "National Soil Survey Handbook" (USDA, 2003).

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Properties

Table 20 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.

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.

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.

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

Table 21 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of 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 moderately fine texture 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 layer that impedes the downward movement of water or soils of moderately fine texture 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 clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer 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.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. Table 21 indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Also shown in table 21 is the kind of water table—that is, apparent or perched. An *apparent* water table is a thick zone of free water in the soil. It is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil. A *perched* water table is water standing above an unsaturated zone. In places an upper, or perched, water table is separated from a lower one by a dry zone.

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 21 indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information 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 levels 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.

Soil Features

Table 22 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table 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.

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Glossary

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Alpha,alpha-dipyridyl. A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction in which a slope faces.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

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.

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.

Calcareous soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

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.

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.

Clayey soil. Silty clay, sandy clay, or clay.

Closed depression. A low area completely surrounded by higher ground and having no natural outlet.

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.

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.

Corrosion. Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

Cropping system. Growing crops according to a planned system of rotation and management practices.

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.

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.

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.

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. An area of ground at a lower elevation than the surrounding ground and in which water collects and is drained to a closed depression or lake or to a drainageway at a lower elevation. A drainageway may or may not have distinctly incised channels at its upper reaches or throughout its course.

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.

Endosaturation. A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.

Eolian soil material. Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.

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.

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.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity, normal moisture capacity,* or *capillary capacity*.

Fine textured soil. Sandy clay, silty clay, or clay.

Flood plain. A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

Flood-plain splay. A fan-shaped deposit or other outspread deposit formed where an overloaded stream breaks through a levee (natural or artificial) and deposits its material (commonly coarse grained) on the flood plain.

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.

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.

Glacial drift (geology). 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 (geology). Gravel, sand, and silt, commonly stratified, deposited by glacial meltwater.

Glacial till (geology). Unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice.

Glaciated uplands. Land areas that were previously covered by continental or alpine glaciers and that are at a higher elevation than the flood plain.

Glaciofluvial deposits (geology). 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 (geology). 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.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water (geology). Water filling all the unblocked pores of the material below the water table.

Gully. A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Head slope. A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

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.

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.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Interfluve. An elevated area between two drainageways that sheds water to those drainageways.

Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

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. Typical methods of irrigation used in the survey area are:

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.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Karst (topography). The relief of an area underlain by limestone that dissolves in differing degrees, thus forming numerous depressions or small basins.

K_{sat}. Saturated hydraulic conductivity. (See Permeability.)

Lacustrine deposit (geology). Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

Lake plain. A nearly level surface marking the floor of an extinct lake filled by well sorted, generally fine textured, stratified deposits, commonly containing varves.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at $^{1}/_{3}$- or $^{1}/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loamy soil. Coarse sandy loam, sandy loam, fine sandy loam, very fine sandy loam, loam, silt loam, silt, clay loam, sandy clay loam, or silty clay loam.

Loess. Fine grained material, dominantly of silt-sized particles, deposited by wind.

Low strength. The soil is not strong enough to support loads.

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.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

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.

MLRA (Major Land Resource Area). A geographic area characterized by a particular pattern of land uses, elevation and topography, soils, climate, water resources, and potential natural 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.)

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.

Natric horizon. A special kind of argillic horizon that contains enough exchangeable sodium to have an adverse effect on the physical condition of the subsoil.

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.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedisediment. A thin layer of alluvial material that mantles an erosion surface and has been transported to its present position from higher lying areas of the erosion surface.

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as "saturated hydraulic conductivity," which is defined in the "Soil Survey Manual." In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as "permeability." Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0015 inch
Very slow	0.0015 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

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.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

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 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.

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.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Rock outcrop. Exposures of bare bedrock other than lava flows and rocklined pits.

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.

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.

Sandy soil. Sand or loamy sand.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saturated hydraulic conductivity (K_{sat}). See Permeability.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.

Seepage (in tables). The movement of water through the soil. 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.

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.

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.

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.

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.

Slackwater. A still body of water in a stream.

Slickensides. Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.

Slope (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth’s surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

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.

Stream channel. The hollow bed where a natural stream of surface water flows or may flow; the deepest or central part of the bed, formed by the main current and covered more or less continuously by water.

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel. It originally formed near the level of the stream and is the dissected remnants of an abandoned flood plain, streambed, or valley floor that were produced during a former stage of erosion or deposition.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single 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.

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. Technically, the E horizon. Generally refers to a leached horizon lighter in color and lower in content of organic matter than the overlying 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.”

Talus. Fragments of rock and other soil material accumulated by gravity at the foot of cliffs or steep slopes.

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 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.

Understory. Any plants in a forest community that grow to a height of less than 5 feet.

Upland (geology). Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

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.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth’s surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wilting point (or permanent wilting point). The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Windthrow. The uprooting and tipping over of trees by the wind.

Tables

Table 1.--Temperature and Precipitation

(Recorded in the period 1971-2000 at Geneseo, Illinois)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	2 years in 10 will have-- Maximum temperature higher than--	2 years in 10 will have-- Minimum temperature lower than--	Average number of growing degree days*	Average	2 years in 10 will have-- Less than--	2 years in 10 will have-- More than--	Average number of days with 0.10 inch or more	Average snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January----	28.7	12.7	20.7	57	-17	0	1.52	0.75	2.19	4	8.4
February---	34.4	18.7	26.5	63	-12	1	1.60	.86	2.26	3	5.5
March------	47.4	29.0	38.2	80	5	27	2.66	1.24	3.88	5	3.2
April------	61.0	39.7	50.4	87	20	120	3.74	2.35	5.00	6	1.2
May--------	73.0	51.1	62.1	92	33	378	4.21	2.05	6.07	7	.0
June-------	82.4	60.8	71.6	97	45	649	4.20	1.89	6.17	6	.0
July-------	85.7	65.0	75.4	99	50	788	3.90	1.89	5.65	6	.0
August-----	83.2	62.6	72.9	97	48	708	4.32	1.73	6.51	6	.0
September--	75.6	53.9	64.8	94	35	446	3.29	1.39	4.89	5	.0
October----	63.3	42.4	52.9	85	24	160	3.00	1.43	4.36	5	.1
November---	46.9	30.4	38.6	73	7	23	2.82	1.40	4.05	5	2.1
December---	33.4	18.5	25.9	61	-10	3	2.15	1.03	3.12	4	7.2
Yearly:											
Average---	59.6	40.4	50.0	---	---	---	---	---	---	---	---
Extreme---	103	-24	---	100	-18	---	---	---	---	---	---
Total-----	---	---	---	---	---	3,302	37.41	32.23	42.13	62	27.8

* 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 (50 degrees F).

Table 2.--Freeze Dates in Spring and Fall

(Recorded in the period 1971-2000 at Geneseo, Illinois)

Probability	Temperature: 24 ^{o}F or lower	Temperature: 28 ^{o}F or lower	Temperature: 32 ^{o}F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	Apr. 13	Apr. 21	May 3
2 years in 10 later than--	Apr. 8	Apr. 17	Apr. 28
5 years in 10 later than--	Mar. 31	Apr. 9	Apr. 17
First freezing temperature in fall:			
1 year in 10 earlier than--	Oct. 22	Oct. 12	Sept. 27
2 years in 10 earlier than--	Oct. 27	Oct. 17	Oct. 3
5 years in 10 earlier than--	Nov. 5	Oct. 28	Oct. 13

Table 3.--Growing Season

(Recorded in the period 1971-2000 at Geneseo, Illinois)

Probability	Daily minimum temperature during growing season: Higher than 24 ^{o}F	Higher than 28 ^{o}F	Higher than 32 ^{o}F
	Days	Days	Days
9 years in 10	199	180	154
8 years in 10	206	187	162
5 years in 10	218	201	177
2 years in 10	231	215	193
1 year in 10	237	222	201

Table 4.--Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series)

Soil name	Family or higher taxonomic class
Adrian	Sandy or sandy-skeletal, mixed, euic, mesic Terric Haplosaprists
Aholt	Very fine, smectitic, calcareous, mesic Vertic Haplaquolls
Ambraw	Fine-loamy, mixed, superactive, mesic Fluvaquentic Endoaquolls
*Assumption	Fine-silty, mixed, superactive, mesic Oxyaquic Argiudolls
Atlas	Fine, smectitic, mesic Aeric Chromic Vertic Epiaqualfs
Beaucoup	Fine-silty, mixed, superactive, mesic Fluvaquentic Endoaquolls
Biggsville	Fine-silty, mixed, superactive, mesic Typic Hapludolls
Bold	Coarse-silty, mixed, superactive, calcareous, mesic Typic Udorthents
Booker	Very fine, smectitic, mesic Cumulic Vertic Endoaquolls
Brenton	Fine-silty, mixed, superactive, mesic Aquic Argiudolls
Broadwell	Fine-silty, mixed, superactive, mesic Typic Argiudolls
Buckhart	Fine-silty, mixed, superactive, mesic Oxyaquic Argiudolls
Calco	Fine-silty, mixed, superactive, calcareous, mesic Cumulic Endoaquolls
Clarksdale	Fine, smectitic, mesic Udollic Endoaqualfs
Cohoctah	Coarse-loamy, mixed, active, mesic Fluvaquentic Endoaquolls
Coloma	Mixed, mesic Lamellic Udipsamments
*Coyne	Coarse-loamy, mixed, active, mesic Typic Argiudolls
*Cresent	Fine-loamy, mixed, superactive, mesic Typic Argiudolls
Denny	Fine, smectitic, mesic Mollic Albaqualfs
Denrock	Fine, mixed, superactive, mesic Aquic Argiudolls
*Dickinson	Coarse-loamy, mixed, superactive, mesic Typic Hapludolls
Drummer	Fine-silty, mixed, superactive, mesic Typic Endoaquolls
Elburn	Fine-silty, mixed, superactive, mesic Aquic Argiudolls
Elco	Fine-silty, mixed, superactive, mesic Oxyaquic Hapludalfs
*Elkhart	Fine-silty, mixed, superactive, mesic Typic Argiudolls
Fayette	Fine-silty, mixed, superactive, mesic Typic Hapludalfs
Fella	Fine-silty, mixed, superactive, mesic Fluvaquentic Endoaquolls
Gilford	Coarse-loamy, mixed, superactive, mesic Typic Endoaquolls
Greenbush	Fine-silty, mixed, superactive, mesic Mollic Hapludalfs
Harpster	Fine-silty, mixed, superactive, mesic Typic Calciaquolls
Hickory	Fine-loamy, mixed, active, mesic Typic Hapludalfs
Hoopeston	Coarse-loamy, mixed, superactive, mesic Aquic Hapludolls
Hooppole	Fine-loamy, mixed, superactive, calcareous, mesic Typic Endoaquolls
Ipava	Fine, smectitic, mesic Aquic Argiudolls
Joy	Fine-silty, mixed, superactive, mesic Aquic Hapludolls
Joyce	Fine-silty, mixed, superactive, mesic Aquic Hapludolls
Keltner	Fine-silty, mixed, superactive, mesic Oxyaquic Argiudolls
Keomah	Fine, smectitic, mesic Aeric Endoaqualfs
La Hogue	Fine-loamy, mixed, superactive, mesic Aquic Argiudolls
Lenzburg	Fine-loamy, mixed, active, calcareous, mesic Haplic Udarents
Littleton	Fine-silty, mixed, superactive, mesic Aquic Cumulic Hapludolls
*Loran	Fine-silty, mixed, superactive, mesic Aquic Argiudolls
Marseilles	Fine-silty, mixed, active, mesic Typic Hapludalfs
Medway	Fine-loamy, mixed, superactive, mesic Fluvaquentic Hapludolls
Milford	Fine, mixed, superactive, mesic Typic Endoaquolls
Millbrook	Fine-silty, mixed, superactive, mesic Udollic Endoaqualfs
Moline	Fine, smectitic, mesic Vertic Endoaquolls
*Montgomery	Fine, mixed, active, mesic Vertic Endoaquolls
Muscatune	Fine-silty, mixed, superactive, mesic Aquic Argiudolls
Muskego	Coprogenous, euic, mesic Limnic Haplosaprists
Niota	Fine, mixed, superactive, mesic Vertic Albaqualfs
Normandy	Fine-loamy, mixed, superactive, calcareous, mesic Fluvaquentic Endoaquolls
Oakville	Mixed, mesic Typic Udipsamments
Orio	Fine-loamy, mixed, active, mesic Mollic Endoaqualfs
Orion	Coarse-silty, mixed, superactive, nonacid, mesic Aquic Udifluvents
Orthents	Fine-loamy, mixed, active, nonacid, mesic Typic Udorthents
*Osco	Fine-silty, mixed, superactive, mesic Typic Argiudolls
Palms	Loamy, mixed, euic, mesic Terric Haplosaprists
*Parkway	Fine-silty, mixed, superactive, mesic Typic Argiudolls
Pella	Fine-silty, mixed, superactive, mesic Typic Endoaquolls

Table 4.--Classification of the Soils--Continued

Soil name	Family or higher taxonomic class
*Plano	Fine-silty, mixed, superactive, mesic Typic Argiudolls
*Port Byron	Fine-silty, mixed, superactive, mesic Typic Hapludolls
*Proctor	Fine-silty, mixed, superactive, mesic Typic Argiudolls
Prophetstown	Fine-silty, mixed, superactive, mesic Typic Calciaquolls
Psamments	Mixed, mesic Udipsamments
Raddle	Fine-silty, mixed, superactive, mesic Typic Hapludolls
Radford	Fine-silty, mixed, superactive, mesic Fluvaquentic Hapludolls
Richwood	Fine-silty, mixed, superactive, mesic Typic Argiudolls
Rozetta	Fine-silty, mixed, superactive, mesic Typic Hapludalfs
Sable	Fine-silty, mixed, superactive, mesic Typic Endoaquolls
Sawmill	Fine-silty, mixed, superactive, mesic Cumulic Endoaquolls
Seaton	Fine-silty, mixed, superactive, mesic Typic Hapludalfs
Selma	Fine-loamy, mixed, superactive, mesic Typic Endoaquolls
Senachwine	Fine-loamy, mixed, active, mesic Typic Hapludalfs
Sparta	Sandy, mixed, mesic Entic Hapludolls
Sylvan	Fine-silty, mixed, superactive, mesic Typic Hapludalfs
Tell	Fine-silty over sandy or sandy-skeletal, mixed, superactive, mesic Typic Hapludalfs
Thebes	Fine-silty, mixed, superactive, mesic Typic Hapludalfs
Thorp	Fine-silty, mixed, superactive, mesic Argiaquic Argialbolls
Tice	Fine-silty, mixed, superactive, mesic Fluvaquentic Hapludolls
Timula	Coarse-silty, mixed, superactive, mesic Typic Eutrudepts
Titus	Fine, smectitic, mesic Vertic Endoaquolls
Velma	Fine-loamy, mixed, superactive, mesic Typic Argiudolls
Watseka	Sandy, mixed, mesic Aquic Hapludolls
*Waukegan	Fine-silty over sandy or sandy-skeletal, mixed, superactive, mesic Typic Hapludolls
Westville	Fine-loamy, mixed, superactive, mesic Typic Hapludalfs

Table 5.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
8D2	Hickory silt loam, 10 to 18 percent slopes, eroded	3,463	0.7
8D3	Hickory clay loam, 10 to 18 percent slopes, severely eroded	6,312	1.2
8F	Hickory silt loam, 18 to 35 percent slopes	206	*
8F2	Hickory silt loam, 18 to 35 percent slopes, eroded	5,216	1.0
17A	Keomah silt loam, 0 to 2 percent slopes	442	*
19D2	Sylvan silt loam, 10 to 18 percent slopes, eroded	6,507	1.2
19D3	Sylvan silty clay loam, 10 to 18 percent slopes, severely eroded	16,884	3.2
19F	Sylvan silt loam, 18 to 35 percent slopes	3,383	0.6
22D2	Westville loam, 10 to 18 percent slopes, eroded	230	*
22D3	Westville clay loam, 10 to 18 percent slopes, severely eroded	281	*
43A	Ipava silt loam, 0 to 2 percent slopes	29,825	5.6
45A	Denny silt loam, 0 to 2 percent slopes	412	*
49A	Watseka loamy fine sand, 0 to 2 percent slopes	1,047	0.2
51A	Muscatune silt loam, 0 to 2 percent slopes	20,291	3.8
67A	Harpster silty clay loam, 0 to 2 percent slopes	7,356	1.4
68A	Sable silty clay loam, 0 to 2 percent slopes	5,467	1.0
69A	Milford silty clay loam, 0 to 2 percent slopes	2,840	0.5
81A	Littleton silt loam, 0 to 2 percent slopes	547	0.1
86B	Osco silt loam, 2 to 5 percent slopes	41,688	7.9
86C2	Osco silt loam, 5 to 10 percent slopes, eroded	25,479	4.8
87A	Dickinson sandy loam, 0 to 2 percent slopes	1,429	0.3
87B	Dickinson sandy loam, 2 to 5 percent slopes	2,286	0.4
87B2	Dickinson sandy loam, 2 to 7 percent slopes, eroded	18	*
87C2	Dickinson sandy loam, 5 to 10 percent slopes, eroded	626	0.1
88A	Sparta loamy sand, 0 to 2 percent slopes	145	*
88B	Sparta loamy sand, 1 to 6 percent slopes	2,938	0.6
88C	Sparta loamy sand, 6 to 12 percent slopes	984	0.2
100A	Palms muck, 0 to 2 percent slopes	1,767	0.3
102A	La Hogue loam, 0 to 2 percent slopes	1,185	0.2
119D2	Elco silt loam, 10 to 18 percent slopes, eroded	2,664	0.5
119D3	Elco silty clay loam, 10 to 18 percent slopes, severely eroded	1,405	0.3
125A	Selma loam, 0 to 2 percent slopes	4,858	0.9
148B	Proctor silt loam, 2 to 5 percent slopes	4,677	0.9
148C2	Proctor silt loam, 5 to 10 percent slopes, eroded	2,471	0.5
149A	Brenton silt loam, 0 to 2 percent slopes	1,697	0.3
152A	Drummer silty clay loam, 0 to 2 percent slopes	12,313	2.3
153A	Pella silty clay loam, 0 to 2 percent slopes	2,906	0.6
172A	Hoopeston sandy loam, 0 to 2 percent slopes	896	0.2
198A	Elburn silt loam, 0 to 2 percent slopes	14,612	2.8
199A	Plano silt loam, 0 to 2 percent slopes	2,389	0.5
199B	Plano silt loam, 2 to 5 percent slopes	8,036	1.5
199C2	Plano silt loam, 5 to 10 percent slopes, eroded	1,265	0.2
200A	Orio loam, 0 to 2 percent slopes	2,300	0.4
201A	Gilford fine sandy loam, 0 to 2 percent slopes	1,835	0.3
206A	Thorp silt loam, 0 to 2 percent slopes	3,230	0.6
212B	Thebes silt loam, 2 to 5 percent slopes	12	*
212D3	Thebes silty clay loam, 10 to 18 percent slopes, severely eroded	384	*
219A	Millbrook silt loam, 0 to 2 percent slopes	3,681	0.7
250C2	Velma silt loam, 5 to 10 percent slopes, eroded	274	*
250D2	Velma silt loam, 10 to 18 percent slopes, eroded	1,073	0.2
250E2	Velma silt loam, 18 to 25 percent slopes, eroded	408	*
257A	Clarksdale silt loam, 0 to 2 percent slopes	1,929	0.4
259B	Assumption silt loam, 2 to 5 percent slopes	2,766	0.5
259C2	Assumption silt loam, 5 to 10 percent slopes, eroded	2,291	0.4
259D2	Assumption silt loam, 10 to 18 percent slopes, eroded	1,322	0.3
261A	Niota silt loam, 0 to 2 percent slopes	3,377	0.6
262A	Denrock silt loam, 0 to 2 percent slopes	1,111	0.2
274B	Seaton silt loam, 2 to 5 percent slopes	3,312	0.6
274C2	Seaton silt loam, 5 to 10 percent slopes, eroded	5,126	1.0
274D2	Seaton silt loam, 10 to 18 percent slopes, eroded	2,132	0.4
275A	Joy silt loam, 0 to 2 percent slopes	2,133	0.4

See footnote at end of table.

Table 5.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
277C2	Port Byron silt loam, 5 to 10 percent slopes, eroded	947	0.2
279A	Rozetta silt loam, 0 to 2 percent slopes	813	0.2
279B	Rozetta silt loam, 2 to 5 percent slopes	39	*
280B	Fayette silt loam, 2 to 5 percent slopes	3,994	0.8
280C2	Fayette silt loam, 5 to 10 percent slopes, eroded	11,790	2.2
280D2	Fayette silt loam, 10 to 18 percent slopes, eroded	3,969	0.8
280D3	Fayette silty clay loam, 10 to 18 percent slopes, severely eroded	2,218	0.4
430A	Raddle silt loam, 0 to 2 percent slopes	353	*
430B	Raddle silt loam, 2 to 5 percent slopes	589	0.1
457A	Booker silty clay, 0 to 2 percent slopes	5,081	1.0
465A	Montgomery silty clay, 0 to 2 percent slopes	2,240	0.4
485A	Richwood silt loam, 0 to 2 percent slopes	1,658	0.3
485B	Richwood silt loam, 2 to 5 percent slopes	1,601	0.3
487A	Joyce silt loam, 0 to 2 percent slopes	3,065	0.6
488A	Hooppole loam, 0 to 2 percent slopes	1,453	0.3
546B	Keltner silt loam, 2 to 5 percent slopes	574	0.1
546C2	Keltner silt loam, 5 to 10 percent slopes, eroded	729	0.1
549D2	Marseilles silt loam, 10 to 18 percent slopes, eroded	851	0.2
549F	Marseilles silt loam, 18 to 35 percent slopes	41	*
549F2	Marseilles silt loam, 18 to 35 percent slopes, eroded	667	0.1
564A	Waukegan silt loam, 0 to 2 percent slopes	2,736	0.5
564B	Waukegan silt loam, 2 to 5 percent slopes	1,798	0.3
564B2	Waukegan silt loam, 2 to 5 percent slopes, eroded	10	*
565A	Tell silt loam, 0 to 2 percent slopes	555	0.1
565B	Tell silt loam, 2 to 5 percent slopes	2,040	0.4
565C2	Tell silt loam, 5 to 10 percent slopes, eroded	1,435	0.3
567D2	Elkhart silt loam, 10 to 18 percent slopes, eroded	6,161	1.2
572A	Loran silt loam, 0 to 2 percent slopes	313	*
572B	Loran silt loam, 2 to 5 percent slopes	963	0.2
572C2	Loran silt loam, 5 to 10 percent slopes, eroded	346	*
618C2	Senachwine silt loam, 5 to 10 percent slopes, eroded	705	0.1
618D2	Senachwine silt loam, 10 to 18 percent slopes, eroded	481	*
670A	Aholt silty clay, 0 to 2 percent slopes	2,319	0.4
671A	Biggsville silt loam, 0 to 2 percent slopes	1,499	0.3
671B	Biggsville silt loam, 2 to 5 percent slopes	5,348	1.0
672A	Cresent loam, 0 to 2 percent slopes	297	*
672B	Cresent loam, 2 to 5 percent slopes	602	0.1
672D3	Cresent loam, 10 to 18 percent slopes, severely eroded	1,338	0.3
675A	Greenbush silt loam, 0 to 2 percent slopes	1,943	0.4
675B	Greenbush silt loam, 2 to 5 percent slopes	15,756	3.0
675C2	Greenbush silt loam, 5 to 10 percent slopes, eroded	22,895	4.3
684B	Broadwell silt loam, 2 to 5 percent slopes	151	*
684C2	Broadwell silt loam, 5 to 10 percent slopes, eroded	325	*
686A	Parkway silt loam, 0 to 2 percent slopes	909	0.2
686B	Parkway silt loam, 2 to 5 percent slopes	2,451	0.5
686B2	Parkway silt loam, 2 to 5 percent slopes, eroded	14	*
689B	Coloma sand, 1 to 7 percent slopes	1,989	0.4
689D	Coloma sand, 7 to 15 percent slopes	443	*
705A	Buckhart silt loam, 0 to 2 percent slopes	6,383	1.2
741B	Oakville fine sand, 1 to 7 percent slopes	1,184	0.2
741D	Oakville fine sand, 7 to 15 percent slopes	4,367	0.8
741F	Oakville fine sand, 20 to 30 percent slopes	1,151	0.2
764A	Coyne fine sandy loam, 0 to 2 percent slopes	970	0.2
764B	Coyne loam, 2 to 5 percent slopes	1,135	0.2
767A	Prophetstown silt loam, 0 to 2 percent slopes	2,006	0.4
777A	Adrian muck, 0 to 2 percent slopes	1,353	0.3
800C	Psamments, sloping	419	*
802B	Orthents, loamy, undulating	1,109	0.2
871B	Lenzburg silty clay loam, 1 to 7 percent slopes	828	0.2
871G	Lenzburg silty clay loam, 20 to 60 percent slopes	1,792	0.3
911G	Timula-Hickory silt loams, 35 to 60 percent slopes	654	0.1

See footnote at end of table.

Table 5.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
913D	Marseilles-Hickory silt loams, 10 to 18 percent slopes	548	0.1
913D3	Marseilles-Hickory complex, 10 to 18 percent slopes, severely eroded	788	0.1
913F	Marseilles-Hickory silt loams, 18 to 35 percent slopes	27	*
913F2	Marseilles-Hickory complex, 18 to 35 percent slopes, eroded	1,272	0.2
917B	Oakville-Tell complex, 1 to 7 percent slopes	1,948	0.4
917C2	Oakville-Tell complex, 5 to 10 percent slopes, eroded	38	*
917D	Oakville-Tell complex, 7 to 15 percent slopes	4,364	0.8
917D2	Oakville-Tell complex, 10 to 18 percent slopes, eroded	266	*
918D3	Marseilles-Atlas silty clay loams, 10 to 18 percent slopes, severely eroded	497	*
943D3	Seaton-Timula silt loams, 10 to 18 percent slopes, severely eroded	4,106	0.8
943G	Seaton-Timula silt loams, 35 to 60 percent slopes	3,083	0.6
946D2	Hickory-Atlas silt loams, 10 to 18 percent slopes, eroded	1,227	0.2
946D3	Hickory-Atlas complex, 10 to 18 percent slopes, severely eroded	2,851	0.5
957D3	Elco-Atlas silty clay loams, 10 to 18 percent slopes, severely eroded	2,623	0.5
962D3	Sylvan-Bold complex, 10 to 18 percent slopes, severely eroded	3,084	0.6
3070A	Beaucoup silty clay loam, 0 to 2 percent slopes, frequently flooded	2,964	0.6
3074A	Radford silt loam, 0 to 2 percent slopes, frequently flooded	18,956	3.6
3107+	Sawmill silt loam, 0 to 2 percent slopes, frequently flooded, overwash	14,196	2.7
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded	7,507	1.4
3284A	Tice silty clay loam, 0 to 2 percent slopes, frequently flooded	1,858	0.4
3302A	Ambraw silty clay loam, 0 to 2 percent slopes, frequently flooded	1,086	0.2
3400A	Calco silty clay loam, 0 to 2 percent slopes, frequently flooded	729	0.1
3415A	Orion silt loam, 0 to 2 percent slopes, frequently flooded	6,491	1.2
7100A	Palms muck, 0 to 2 percent slopes, rarely flooded	160	*
7302A	Ambraw clay loam, 0 to 2 percent slopes, rarely flooded	1,143	0.2
7404A	Titus silty clay loam, 0 to 2 percent slopes, rarely flooded	1,525	0.3
7654A	Moline silty clay, 0 to 2 percent slopes, rarely flooded	419	*
7682A	Medway loam, 0 to 2 percent slopes, rarely flooded	1,262	0.2
7777A	Adrian muck, 0 to 2 percent slopes, rarely flooded	145	*
8107+	Sawmill silt loam, 0 to 2 percent slopes, occasionally flooded, overwash	820	0.2
8166A	Cohoctah loam, 0 to 2 percent slopes, occasionally flooded	871	0.2
8284A	Tice silty clay loam, 0 to 2 percent slopes, occasionally flooded	579	0.1
8302A	Ambraw loam, 0 to 2 percent slopes, occasionally flooded	6,281	1.2
8400A	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	333	*
8415A	Orion silt loam, 0 to 2 percent slopes, occasionally flooded	210	*
8492A	Normandy loam, 0 to 2 percent slopes, occasionally flooded	443	*
8499A	Fella silty clay loam, 0 to 2 percent slopes, occasionally flooded	508	*
8638A	Muskego muck, 0 to 2 percent slopes, occasionally flooded	117	*
M-W	Miscellaneous water	64	*
W	Water	2,747	0.5
	Total	528,120	100.0

* Less than 0.1 percent.

Table 6.--Land Capability and Yields per Acre of Crops and Pasture

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. 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	Corn	Soybeans	Oats	Winter wheat	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
8D2:							
Hickory-------------	3e	72	23	50	26	2.7	4.5
8D3:							
Hickory-------------	4e	66	22	46	24	2.5	4.2
8F:							
Hickory-------------	6e	---	---	---	---	2.4	4.0
8F2:							
Hickory-------------	6e	---	---	---	---	2.3	3.9
17A:							
Keomah--------------	2w	129	39	72	52	5.1	8.5
19D2:							
Sylvan--------------	3e	101	32	59	48	4.5	7.5
19D3:							
Sylvan--------------	4e	93	29	55	44	4.2	6.9
19F:							
Sylvan--------------	6e	---	---	---	---	4.0	6.6
22D2:							
Westville-----------	4e	103	32	58	42	3.8	6.3
22D3:							
Westville-----------	6e	---	---	---	---	3.5	5.8
43A:							
Ipava---------------	1	163	52	91	66	6.1	10.1
45A:							
Denny---------------	3w	113	37	62	47	---	---
49A:							
Watseka-------------	3s	92	31	62	43	3.7	6.2
51A:							
Muscatune-----------	1	167	51	95	64	6.2	10.3
67A:							
Harpster------------	2w	136	44	74	52	5.0	8.3
68A:							
Sable---------------	2w	156	51	85	61	---	---
69A:							
Milford-------------	2w	131	48	81	56	5.2	8.7
81A:							
Littleton-----------	1	159	50	90	63	6.1	10.1
86B:							
Osco----------------	2e	153	46	88	61	5.8	9.7

See footnote at end of table.

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Oats	Winter wheat	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
86C2:							
Osco----------------	3e	146	43	84	58	5.5	9.2
87A:							
Dickinson-----------	2s	99	37	77	45	3.9	6.5
87B:							
Dickinson-----------	2e	98	36	77	44	3.8	6.4
87B2:							
Dickinson-----------	2e	95	36	74	43	3.9	6.2
87C2:							
Dickinson-----------	3e	93	34	72	42	3.7	6.1
88A:							
Sparta--------------	4s	85	29	53	37	3.3	5.5
88B:							
Sparta--------------	4s	84	29	52	37	3.3	5.4
88C:							
Sparta--------------	6s	---	---	---	---	3.2	5.3
100A:							
Palms---------------	3w	115	36	---	---	---	---
102A:							
La Hogue------------	1	129	43	80	56	5.2	8.7
119D2:							
Elco----------------	3e	100	33	57	42	3.9	6.5
119D3:							
Elco----------------	4e	93	31	53	39	3.7	6.1
125A:							
Selma---------------	2w	136	44	76	53	5.0	8.3
148B:							
Proctor-------------	2e	143	44	87	58	5.4	9.1
148C2:							
Proctor-------------	3e	135	41	83	55	5.2	8.6
149A:							
Brenton-------------	1	160	47	91	62	5.9	9.8
152A:							
Drummer-------------	2w	154	51	83	61	5.5	9.2
153A:							
Pella---------------	2w	140	48	78	56	5.2	8.7
172A:							
Hoopeston-----------	2s	105	33	70	47	4.1	6.8
198A:							
Elburn--------------	1	161	50	94	63	6.1	10.2

See footnote at end of table.

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Oats	Winter wheat	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
199A: Plano	1	151	45	90	60	5.8	9.7
199B: Plano	2e	150	45	89	59	5.7	9.6
199C2: Plano	3e	142	42	85	56	5.5	9.1
200A: Orio	2w	112	37	64	47	4.1	6.8
201A: Gilford	2w	110	39	68	46	4.1	6.8
206A: Thorp	2w	126	42	69	51	4.6	7.7
212B: Thebes	2e	99	35	72	46	4.0	6.6
212D3: Thebes	4e	83	29	61	38	3.3	5.5
219A: Millbrook	1	144	43	81	59	5.4	9.0
250C2: Velma	3e	111	37	68	48	4.3	7.2
250D2: Velma	3e	106	35	65	46	4.1	6.9
250E2: Velma	4e	91	30	55	39	3.5	5.9
257A: Clarksdale	1	140	43	79	57	5.3	8.8
259B: Assumption	2e	127	39	76	55	5.0	8.3
259C2: Assumption	3e	120	37	72	52	4.7	7.8
259D2: Assumption	4e	115	35	69	50	4.5	7.5
261A: Niota	2w	86	30	53	39	3.3	5.5
262A: Denrock	2w	108	37	63	46	4.1	6.8
274B: Seaton	2e	117	35	68	49	4.7	7.9
274C2: Seaton	3e	110	33	65	46	4.5	7.5

See footnote at end of table.

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Oats	Winter wheat	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
274D2:							
Seaton	4e	106	32	62	44	4.3	7.2
275A:							
Joy	1	161	48	92	63	6.1	10.2
277C2:							
Port Byron	3e	141	42	83	57	5.3	8.8
279A:							
Rozetta	1	131	40	73	54	5.2	8.6
279B:							
Rozetta	2e	130	40	72	53	5.1	8.6
280B:							
Fayette	2e	128	39	72	52	5.1	8.6
280C2:							
Fayette	3e	121	37	69	50	4.9	8.1
280D2:							
Fayette	3e	116	35	61	48	4.7	7.8
280D3:							
Fayette	4e	107	32	61	44	4.3	7.2
430A:							
Raddle	1	149	45	83	59	5.8	9.7
430B:							
Raddle	2e	148	45	82	58	5.7	9.6
457A:							
Booker	3w	78	28	45	34	2.9	4.8
465A:							
Montgomery	3w	115	39	64	47	4.2	7.0
485A:							
Richwood	1	124	42	73	52	4.8	8.0
485B:							
Richwood	2e	123	42	72	51	4.7	7.9
487A:							
Joyce	1	155	46	89	61	5.8	9.6
488A:							
Hooppole	2w	132	44	77	53	5.3	8.8
546B:							
Keltner	2e	109	36	73	48	4.5	7.4
546C2:							
Keltner	3e	103	34	70	45	4.2	7.1
549D2:							
Marseilles	4e	90	31	56	40	3.9	6.3

See footnote at end of table.

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Oats	Winter wheat	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
549F:							
Marseilles----------	7e	---	---	---	---	---	---
549F2:							
Marseilles----------	7e	---	---	---	---	---	---
564A:							
Waukegan------------	2s	108	38	65	47	4.2	7.0
564B:							
Waukegan------------	2e	107	38	64	47	4.2	6.9
564B2:							
Waukegan------------	2e	104	36	62	45	4.0	6.7
565A:							
Tell----------------	2s	102	35	60	45	4.0	6.7
565B:							
Tell----------------	2e	101	35	59	44	4.0	6.6
565C2:							
Tell----------------	3e	96	33	56	42	3.8	6.3
567D2:							
Elkhart-------------	3e	119	35	66	48	4.6	7.7
572A:							
Loran---------------	1	120	39	68	49	4.7	7.8
572B:							
Loran---------------	2e	119	39	67	49	4.7	7.8
572C2:							
Loran---------------	3e	113	37	64	46	4.4	7.3
618C2:							
Senachwine----------	3e	114	38	64	48	4.5	7.5
618D2:							
Senachwine----------	4e	109	36	61	46	4.3	7.2
670A:							
Aholt---------------	3w	110	37	45	42	4.0	5.3
671A:							
Biggsville----------	1	150	45	88	61	5.6	9.3
671B:							
Biggsville----------	2e	149	45	87	60	5.5	9.2
672A:							
Cresent-------------	1	138	42	88	57	5.3	8.8
672B:							
Cresent-------------	2e	137	42	87	56	5.2	8.7
672D3:							
Cresent-------------	4e	115	35	73	47	4.4	7.3

See footnote at end of table.

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Oats	Winter wheat	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
675A:							
Greenbush-----------	1	148	43	83	59	5.6	9.3
675B:							
Greenbush-----------	2e	147	42	82	57	5.5	9.2
675C2:							
Greenbush-----------	3e	139	40	78	55	5.3	8.7
684B:							
Broadwell-----------	2e	144	44	83	58	5.5	9.2
684C2:							
Broadwell-----------	3e	136	41	79	55	5.2	8.8
686A:							
Parkway-------------	1	150	46	87	61	5.8	9.7
686B:							
Parkway-------------	2e	149	46	86	60	5.7	9.6
686B2:							
Parkway-------------	2e	144	44	82	59	5.6	9.3
689B:							
Coloma--------------	4s	57	40	20	28	2.4	4.0
689D:							
Coloma--------------	6s	---	---	---	---	---	---
705A:							
Buckhart------------	1	158	48	90	63	6.0	9.9
741B:							
Oakville------------	4s	61	23	48	32	2.9	4.8
741D:							
Oakville------------	6s	---	---	---	---	2.7	4.5
741F:							
Oakville------------	7s	---	---	---	---	---	---
764A:							
Coyne---------------	2s	101	35	67	47	3.8	6.3
764B:							
Coyne---------------	2e	100	35	66	46	3.8	6.3
767A:							
Prophetstown--------	2w	142	45	67	52	4.9	8.1
777A:							
Adrian--------------	4w	98	33	---	---	---	---
800C.							
Psamments							
802B:							
Orthents------------	2e	---	---	---	---	---	---

See footnote at end of table.

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Oats	Winter wheat	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
871B:							
Lenzburg	2e	75	23	---	26	3.4	---
871G:							
Lenzburg	7e	---	---	---	---	---	---
911G		---	---	---	---	---	---
Timula	7e						
Hickory	7e						
913D		86	28	55	35	3.4	5.8
Marseilles	4e						
Hickory	3e						
913D3		---	---	---	---	2.9	4.8
Marseilles	6e						
Hickory	4e						
913F		---	---	---	---	---	4.8
Marseilles	7e						
Hickory	6e						
913F2		---	---	---	---	---	4.6
Marseilles	7e						
Hickory	6e						
917B		80	29	53	38	3.4	5.7
Oakville	4s						
Tell	2e						
917C2		---	---	---	---	3.2	5.3
Oakville	6s						
Tell	3e						
917D		---	---	---	---	3.0	5.1
Oakville	6s						
Tell	4e						
917D2		---	---	---	---	3.1	5.1
Oakville	6s						
Tell	4e						
918D3		---	---	---	---	2.6	4.3
Marseilles	6e						
Atlas	6e						
943D3		---	---	---	---	3.7	6.2
Seaton	6e						
Timula	6e						
943G		---	---	---	---	---	---
Seaton	7e						
Timula	7e						
946D2		---	---	---	---	2.4	4.0
Hickory	3e						
Atlas	6e						
946D3		---	---	---	---	2.2	3.9
Hickory	4e						
Atlas	6e						

See footnote at end of table.

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Oats	Winter wheat	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
957D3		---	---	---	---	2.8	4.5
Elco	4e						
Atlas	6e						
962D3		82	26	49	39	3.6	6.1
Sylvan	4e						
Bold	4e						
3070A:							
Beaucoup	3w	124	41	68	50	4.6	7.7
3074A:							
Radford	3w	129	41	76	---	5.0	8.4
3107+:							
Sawmill	3w	132	42	68	---	5.0	8.3
3107A:							
Sawmill	3w	132	42	68	---	5.0	8.3
3284A:							
Tice	3w	110	34	76	42	5.1	8.6
3302A:							
Ambraw	3w	119	39	63	47	4.1	6.9
3400A:							
Calco	2w	119	40	65	47	4.2	7.0
3415A:							
Orion	3w	80	26	58	---	4.2	7.0
7100A:							
Palms	3w	115	36	---	---	---	---
7302A:							
Ambraw	2w	132	43	70	52	4.6	7.7
7404A:							
Titus	3w	125	42	68	52	4.3	7.2
7654A:							
Moline	3w	115	39	64	47	4.2	7.0
7682A:							
Medway	1	132	42	72	53	5.3	8.8
7777A:							
Adrian	4w	98	33	---	---	---	---
8107+:							
Sawmill	2w	147	47	76	54	5.5	9.2
8166A:							
Cohoctah	2w	110	39	68	46	4.1	6.8
8284A:							
Tice	2w	153	47	84	61	5.7	9.5

See footnote at end of table.

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Oats	Winter wheat	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
8302A:							
Ambraw	2w	132	43	70	52	4.6	7.7
8400A:							
Calco	2w	132	44	72	52	4.7	7.8
8415A:							
Orion	2w	135	43	72	52	4.7	7.8
8492A:							
Normandy	2w	132	44	77	53	5.3	8.8
8499A:							
Fella	2w	140	48	78	56	5.2	8.7
8638A:							
Muskego	4w	126	33	---	---	---	---

* Animal unit month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five goats, or five sheep) for 30 days.

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
17A	Keomah silt loam, 0 to 2 percent slopes (where drained)
43A	Ipava silt loam, 0 to 2 percent slopes
45A	Denny silt loam, 0 to 2 percent slopes (where drained)
51A	Muscatune silt loam, 0 to 2 percent slopes
67A	Harpster silty clay loam, 0 to 2 percent slopes (where drained)
68A	Sable silty clay loam, 0 to 2 percent slopes (where drained)
69A	Milford silty clay loam, 0 to 2 percent slopes (where drained)
81A	Littleton silt loam, 0 to 2 percent slopes
86B	Osco silt loam, 2 to 5 percent slopes
87A	Dickinson sandy loam, 0 to 2 percent slopes
87B	Dickinson sandy loam, 2 to 5 percent slopes
87B2	Dickinson sandy loam, 2 to 7 percent slopes, eroded
87C2	Dickinson sandy loam, 5 to 10 percent slopes, eroded
102A	La Hogue loam, 0 to 2 percent slopes
125A	Selma loam, 0 to 2 percent slopes (where drained)
148B	Proctor silt loam, 2 to 5 percent slopes
149A	Brenton silt loam, 0 to 2 percent slopes
152A	Drummer silty clay loam, 0 to 2 percent slopes (where drained)
153A	Pella silty clay loam, 0 to 2 percent slopes (where drained)
172A	Hoopeston sandy loam, 0 to 2 percent slopes
198A	Elburn silt loam, 0 to 2 percent slopes
199A	Plano silt loam, 0 to 2 percent slopes
199B	Plano silt loam, 2 to 5 percent slopes
200A	Orio loam, 0 to 2 percent slopes (where drained)
201A	Gilford fine sandy loam, 0 to 2 percent slopes (where drained)
206A	Thorp silt loam, 0 to 2 percent slopes (where drained)
212B	Thebes silt loam, 2 to 5 percent slopes
219A	Millbrook silt loam, 0 to 2 percent slopes (where drained)
257A	Clarksdale silt loam, 0 to 2 percent slopes (where drained)
259B	Assumption silt loam, 2 to 5 percent slopes
261A	Niota silt loam, 0 to 2 percent slopes (where drained)
262A	Denrock silt loam, 0 to 2 percent slopes
274B	Seaton silt loam, 2 to 5 percent slopes
275A	Joy silt loam, 0 to 2 percent slopes
279A	Rozetta silt loam, 0 to 2 percent slopes
279B	Rozetta silt loam, 2 to 5 percent slopes
280B	Fayette silt loam, 2 to 5 percent slopes
430A	Raddle silt loam, 0 to 2 percent slopes
430B	Raddle silt loam, 2 to 5 percent slopes
457A	Booker silty clay, 0 to 2 percent slopes (where drained)
465A	Montgomery silty clay, 0 to 2 percent slopes (where drained)
485A	Richwood silt loam, 0 to 2 percent slopes
485B	Richwood silt loam, 2 to 5 percent slopes
487A	Joyce silt loam, 0 to 2 percent slopes
488A	Hooppole loam, 0 to 2 percent slopes (where drained)
546B	Keltner silt loam, 2 to 5 percent slopes
564A	Waukegan silt loam, 0 to 2 percent slopes
564B	Waukegan silt loam, 2 to 5 percent slopes
564B2	Waukegan silt loam, 2 to 5 percent slopes, eroded
565A	Tell silt loam, 0 to 2 percent slopes
565B	Tell silt loam, 2 to 5 percent slopes
572A	Loran silt loam, 0 to 2 percent slopes
572B	Loran silt loam, 2 to 5 percent slopes
670A	Aholt silty clay, 0 to 2 percent slopes (where drained)
671A	Biggsville silt loam, 0 to 2 percent slopes
671B	Biggsville silt loam, 2 to 5 percent slopes
672A	Cresent loam, 0 to 2 percent slopes
672B	Cresent loam, 2 to 5 percent slopes

Table 7.--Prime Farmland--Continued

Map symbol	Soil name
675A	Greenbush silt loam, 0 to 2 percent slopes
675B	Greenbush silt loam, 2 to 5 percent slopes
684B	Broadwell silt loam, 2 to 5 percent slopes
686A	Parkway silt loam, 0 to 2 percent slopes
686B	Parkway silt loam, 2 to 5 percent slopes
686B2	Parkway silt loam, 2 to 5 percent slopes, eroded
705A	Buckhart silt loam, 0 to 2 percent slopes
764A	Coyne fine sandy loam, 0 to 2 percent slopes
764B	Coyne loam, 2 to 5 percent slopes
767A	Prophetstown silt loam, 0 to 2 percent slopes (where drained)
871B	Lenzburg silty clay loam, 1 to 7 percent slopes
3070A	Beaucoup silty clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
3074A	Radford silt loam, 0 to 2 percent slopes, frequently flooded (where protected from flooding or not frequently flooded during the growing season)
3107+	Sawmill silt loam, 0 to 2 percent slopes, frequently flooded, overwash (where drained and either protected from flooding or not frequently flooded during the growing season)
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
3284A	Tice silty clay loam, 0 to 2 percent slopes, frequently flooded (where protected from flooding or not frequently flooded during the growing season)
3302A	Ambraw silty clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
3400A	Calco silty clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
3415A	Orion silt loam, 0 to 2 percent slopes, frequently flooded (where protected from flooding or not frequently flooded during the growing season)
7302A	Ambraw clay loam, 0 to 2 percent slopes, rarely flooded (where drained)
7404A	Titus silty clay loam, 0 to 2 percent slopes, rarely flooded (where drained)
7654A	Moline silty clay, 0 to 2 percent slopes, rarely flooded (where drained)
7682A	Medway loam, 0 to 2 percent slopes, rarely flooded
8107+	Sawmill silt loam, 0 to 2 percent slopes, occasionally flooded, overwash (where drained)
8166A	Cohoctah loam, 0 to 2 percent slopes, occasionally flooded (where drained)
8284A	Tice silty clay loam, 0 to 2 percent slopes, occasionally flooded
8302A	Ambraw loam, 0 to 2 percent slopes, occasionally flooded (where drained)
8400A	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded (where drained)
8415A	Orion silt loam, 0 to 2 percent slopes, occasionally flooded
8492A	Normandy loam, 0 to 2 percent slopes, occasionally flooded (where drained)
8499A	Fella silty clay loam, 0 to 2 percent slopes, occasionally flooded (where drained)

Table 8.--Forestland Productivity

(Only the soils suitable for production of commercial trees are listed)

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
8D2, 8D3, 8F, 8F2:				
Hickory	Bitternut hickory	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Black oak	---	---	
	Green ash	---	---	
	Northern red oak	85	72	
	Tuliptree	95	100	
	White oak	85	72	
17A:				
Keomah	Northern red oak	70	57	Common hackberry, eastern cottonwood, green ash, pin oak, river birch, swamp white oak, sweetgum
	White oak	65	43	
19D2, 19D3, 19F:				
Sylvan	Black walnut	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Northern red oak	80	57	
	Tuliptree	90	86	
	White oak	80	57	
22D2, 22D3:				
Westville	Black walnut	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Northern red oak	80	57	
	White oak	80	57	
88A, 88B, 88C:				
Sparta	Eastern white pine	---	---	Common hackberry, eastern redcedar, eastern white pine, green ash, red maple, red pine, shortleaf pine
	Jack pine	---	---	
	Northern red oak	70	57	
	Red pine	---	---	

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
			cu ft/ac	
274B, 274C2, 274D2:				
Seaton	Black walnut	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Northern red oak	80	57	
	Tuliptree	90	86	
	White oak	90	72	
279A, 279B:				
Rozetta	Black walnut	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Northern red oak	80	57	
	Tuliptree	90	86	
	White oak	80	57	
280B, 280C2, 280D2, 280D3:				
Fayette	Black walnut	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Northern red oak	80	57	
	Tuliptree	90	86	
	White oak	80	57	
549D2, 549F, 549F2:				
Marseilles	Black oak	---	---	Black oak, common hackberry, eastern white pine, green ash
	Northern red oak	66	43	
	White ash	---	---	
	White oak	66	29	
565A, 565B, 565C2:				
Tell	Northern red oak	75	57	Black oak, common hackberry, eastern white pine, green ash, red pine
	White oak	75	57	
618C2, 618D2:				
Senachwine	Sweetgum	76	72	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Tuliptree	98	100	
	White oak	90	72	

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
675A, 675B, 675C2:				
Greenbush	Black walnut	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Northern red oak	80	57	
	Tuliptree	90	86	
	White oak	80	57	
689B, 689D:				
Coloma	Eastern white pine	85	200	Common hackberry, eastern redcedar, eastern white pine, green ash, red maple, red pine, shortleaf pine
	Jack pine	68	100	
	Red pine	78	143	
	White oak	70	72	
741B, 741D, 741F:				
Oakville	Eastern white pine	85	200	Common hackberry, eastern redcedar, eastern white pine, green ash, red maple, red pine, shortleaf pine
	Jack pine	68	100	
	Red pine	78	143	
	White oak	70	72	
911G:				
Timula	Bur oak	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Green ash	---	---	
	Northern red oak	---	---	
	White oak	70	57	
Hickory	Bitternut hickory	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Black oak	---	---	
	Green ash	---	---	
	Northern red oak	85	72	
	Tuliptree	95	100	
	White oak	85	72	
913D, 913D3, 913F, 913F2:				
Marseilles	Black oak	---	---	Black oak, common hackberry, eastern white pine, green ash
	Northern red oak	66	43	
	White ash	---	---	
	White oak	66	29	

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
			cu ft/ac	
913D, 913D3, 913F, 913F2:				
Hickory	Bitternut hickory	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Black oak	---	---	
	Green ash	---	---	
	Northern red oak	85	72	
	Tuliptree	95	100	
	White oak	85	72	
917B, 917C2, 917D, 917D2:				
Oakville	Eastern white pine	85	200	Common hackberry, eastern redcedar, eastern white pine, green ash, red maple, red pine, shortleaf pine
	Jack pine	68	100	
	Red pine	78	143	
	White oak	70	72	
Tell	Northern red oak	75	57	Black oak, common hackberry, eastern white pine, green ash, red pine
	White oak	75	57	
918D3:				
Marseilles	Black oak	---	---	Black oak, common hackberry, eastern white pine, green ash
	Northern red oak	66	43	
	White ash	---	---	
	White oak	66	29	
Atlas	Bur oak	70	57	Black oak, bur oak, chinkapin oak, common hackberry, eastern redcedar, green ash
	Green ash	---	---	
	Northern red oak	70	57	
	White oak	70	57	
943D3, 943G:				
Seaton	Black walnut	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Northern red oak	80	57	
	Tuliptree	90	86	
	White oak	90	72	
Timula	Bur oak	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Green ash	---	---	
	Northern red oak	---	---	
	White oak	70	57	

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
946D2, 946D3:				
Hickory	Bitternut hickory	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Black oak	---	---	
	Green ash	---	---	
	Northern red oak	85	72	
	Tuliptree	95	100	
	White oak	85	72	
Atlas	Bur oak	70	57	Black oak, bur oak, chinkapin oak, common hackberry, eastern redcedar, green ash
	Green ash	---	---	
	Northern red oak	70	57	
	White oak	70	57	
957D3:				
Elco	Black walnut	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Northern red oak	---	---	
	White oak	80	57	
Atlas	Bur oak	70	57	Black oak, bur oak, chinkapin oak, common hackberry, eastern redcedar, green ash
	Green ash	---	---	
	Northern red oak	70	57	
	White oak	70	57	
962D3:				
Sylvan	Black walnut	---	---	Black walnut, eastern cottonwood, eastern white pine, green ash, northern red oak, pecan, pin oak, tuliptree, white oak
	Northern red oak	80	57	
	Tuliptree	90	86	
	White oak	80	57	
Bold	---	---	---	Bur oak, chinkapin oak, common hackberry, eastern cottonwood, eastern redcedar, green ash

Table 9a.--Forestland Management

(Only the soils suitable for production of commercial trees are listed. 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. See text for further explanation of ratings in this table)

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
8D2, 8D3:						
Hickory-------------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
8F, 8F2:						
Hickory-------------	Moderate		Poorly suited		Severe	
	Slope	0.50	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
17A:						
Keomah--------------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Wetness	0.50	Low strength	1.00
			Low strength	0.50		
19D2, 19D3:						
Sylvan--------------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
19F:						
Sylvan--------------	Moderate		Poorly suited		Severe	
	Slope	0.50	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
22D2, 22D3:						
Westville-----------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
88A, 88B:						
Sparta--------------	Moderate		Moderately suited		Moderate	
	Sandiness	0.50	Sandiness	0.50	Low strength	0.50
88C:						
Sparta--------------	Moderate		Moderately suited		Moderate	
	Sandiness	0.50	Slope	0.50	Low strength	0.50
			Sandiness	0.50		
274B:						
Seaton--------------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
274C2:						
Seaton--------------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
			Slope	0.50		
274D2:						
Seaton--------------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		

Table 9a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
279A, 279B:						
Rozetta-------------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
280B:						
Fayette-------------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
280C2:						
Fayette-------------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
			Slope	0.50		
280D2, 280D3:						
Fayette-------------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
549D2:						
Marseilles----------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
549F, 549F2:						
Marseilles----------	Moderate		Poorly suited		Severe	
	Slope	0.50	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
565A, 565B:						
Tell----------------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
565C2:						
Tell----------------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
			Slope	0.50		
618C2:						
Senachwine----------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
			Slope	0.50		
618D2:						
Senachwine----------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
675A, 675B:						
Greenbush-----------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
675C2:						
Greenbush-----------	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
			Slope	0.50		
689B:						
Coloma--------------	Moderate		Moderately suited		Moderate	
	Sandiness	0.50	Sandiness	0.50	Low strength	0.50

Table 9a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
689D:						
Coloma	Moderate		Moderately suited		Moderate	
	Sandiness	0.50	Slope	0.50	Low strength	0.50
			Sandiness	0.50		
741B:						
Oakville	Moderate		Moderately suited		Moderate	
	Sandiness	0.50	Sandiness	0.50	Low strength	0.50
741D:						
Oakville	Moderate		Moderately suited		Moderate	
	Sandiness	0.50	Slope	0.50	Low strength	0.50
			Sandiness	0.50		
741F:						
Oakville	Moderate		Poorly suited		Moderate	
	Slope	0.50	Slope	1.00	Low strength	0.50
	Sandiness	0.50	Sandiness	0.50		
911G:						
Timula	Severe		Poorly suited		Severe	
	Slope	1.00	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
Hickory	Severe		Poorly suited		Severe	
	Slope	1.00	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
913D, 913D3:						
Marseilles	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
Hickory	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
913F, 913F2:						
Marseilles	Moderate		Poorly suited		Severe	
	Slope	0.50	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
Hickory	Moderate		Poorly suited		Severe	
	Slope	0.50	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
917B:						
Oakville	Moderate		Moderately suited		Moderate	
	Sandiness	0.50	Sandiness	0.50	Low strength	0.50
Tell	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
917C2, 917D:						
Oakville	Moderate		Moderately suited		Moderate	
	Sandiness	0.50	Sandiness	0.50	Low strength	0.50
			Slope	0.50		
Tell	Moderate		Moderately suited		Severe	
	Low strength	0.50	Low strength	0.50	Low strength	1.00
			Slope	0.50		

Table 9a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
917D2:						
Oakville	Moderate		Poorly suited		Moderate	
	Sandiness	0.50	Slope	1.00	Low strength	0.50
			Sandiness	0.50		
Tell	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
918D3:						
Marseilles	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
Atlas	Moderate		Poorly suited		Severe	
	Stickiness/slope	0.50	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
			Stickiness	0.50		
			Wetness	0.50		
943D3:						
Seaton	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
Timula	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
943G:						
Seaton	Severe		Poorly suited		Severe	
	Slope	1.00	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
Timula	Severe		Poorly suited		Severe	
	Slope	1.00	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
946D2:						
Hickory	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
Atlas	Moderate		Poorly suited		Severe	
	Stickiness/slope	0.50	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
			Wetness	0.50		
946D3:						
Hickory	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
Atlas	Moderate		Poorly suited		Severe	
	Stickiness/slope	0.50	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
			Stickiness	0.50		
			Wetness	0.50		

Table 9a.--Forestland Management--Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
957D3:						
Elco----------------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
Atlas---------------	Moderate		Poorly suited		Severe	
	Stickiness/slope	0.50	Slope	1.00	Low strength	1.00
	Low strength	0.50	Low strength	0.50		
			Stickiness	0.50		
			Wetness	0.50		
962D3:						
Sylvan--------------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		
Bold----------------	Moderate		Poorly suited		Severe	
	Low strength	0.50	Slope	1.00	Low strength	1.00
			Low strength	0.50		

Table 9b.--Forestland Management

(Only the soils suitable for production of commercial trees are listed. 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. See text for further explanation of ratings in this table)

Map symbol and soil name	Hazard of off-road or off-trail erosion		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
8D2, 8D3:						
Hickory	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
8F, 8F2:						
Hickory	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.53	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
17A:						
Keomah	Slight		Slight		Moderately suited	
	Slope/erodibility	0.02	Slope/erodibility	0.11	Wetness	0.50
					Low strength	0.50
19D2, 19D3:						
Sylvan	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
19F:						
Sylvan	Severe		Severe		Poorly suited	
	Slope/erodibility	0.66	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
22D2, 22D3:						
Westville	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
88A:						
Sparta	Slight		Slight		Moderately suited	
	Slope/erodibility	0.02	Slope/erodibility	0.06	Sandiness	0.50
88B:						
Sparta	Slight		Slight		Moderately suited	
	Slope/erodibility	0.08	Slope/erodibility	0.25	Sandiness	0.50
88C:						
Sparta	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
					Sandiness	0.50
274B:						
Seaton	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.09	Slope/erodibility	0.39	Low strength	0.50
274C2:						
Seaton	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.18	Slope/erodibility	0.83	Low strength	0.50
					Slope	0.50

Table 9b.--Forestland Management--Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
274D2:						
Seaton	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
279A:						
Rozetta	Slight		Slight		Moderately suited	
	Slope/erodibility	0.02	Slope/erodibility	0.11	Low strength	0.50
279B:						
Rozetta	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.09	Slope/erodibility	0.39	Low strength	0.50
280B:						
Fayette	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.09	Slope/erodibility	0.39	Low strength	0.50
280C2:						
Fayette	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.18	Slope/erodibility	0.83	Low strength	0.50
					Slope	0.50
280D2, 280D3:						
Fayette	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
549D2:						
Marseilles	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
549F, 549F2:						
Marseilles	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.53	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
565A:						
Tell	Slight		Slight		Moderately suited	
	Slope/erodibility	0.02	Slope/erodibility	0.11	Low strength	0.50
565B:						
Tell	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.09	Slope/erodibility	0.39	Low strength	0.50
565C2:						
Tell	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.18	Slope/erodibility	0.83	Low strength	0.50
					Slope	0.50
618C2:						
Senachwine	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.18	Slope/erodibility	0.83	Low strength	0.50
					Slope	0.50
618D2:						
Senachwine	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50

Table 9b.--Forestland Management--Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
675A:						
Greenbush	Slight		Slight		Moderately suited	
	Slope/erodibility	0.02	Slope/erodibility	0.11	Low strength	0.50
675B:						
Greenbush	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.09	Slope/erodibility	0.39	Low strength	0.50
675C2:						
Greenbush	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.18	Slope/erodibility	0.83	Low strength	0.50
					Slope	0.50
689B:						
Coloma	Slight		Slight		Moderately suited	
	Slope/erodibility	0.08	Slope/erodibility	0.25	Sandiness	0.50
689D:						
Coloma	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.22	Slope/erodibility	0.69	Slope	0.50
					Sandiness	0.50
741B:						
Oakville	Slight		Slight		Moderately suited	
	Slope/erodibility	0.08	Slope/erodibility	0.25	Sandiness	0.50
741D:						
Oakville	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.22	Slope/erodibility	0.69	Slope	0.50
					Sandiness	0.50
741F:						
Oakville	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.44	Slope/erodibility	1.00	Slope	1.00
					Sandiness	0.50
911G:						
Timula	Very severe		Severe		Poorly suited	
	Slope/erodibility	1.00	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
Hickory	Severe		Severe		Poorly suited	
	Slope/erodibility	0.92	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
913D, 913D3:						
Marseilles	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
Hickory	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
913F, 913F2:						
Marseilles	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
Hickory	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50

Table 9b.--Forestland Management--Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
917B:						
Oakville	Slight		Slight		Moderately suited	
	Slope/erodibility	0.08	Slope/erodibility	0.25	Sandiness	0.50
Tell	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.10	Slope/erodibility	0.44	Low strength	0.50
917C2:						
Oakville	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.15	Slope/erodibility	0.47	Sandiness	0.50
					Slope	0.50
Tell	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.18	Slope/erodibility	0.83	Low strength	0.50
					Slope	0.50
917D:						
Oakville	Slight		Moderate		Moderately suited	
	Slope/erodibility	0.22	Slope/erodibility	0.69	Slope	0.50
					Sandiness	0.50
Tell	Moderate		Severe		Moderately suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	0.50
					Low strength	0.50
917D2:						
Oakville	Moderate		Moderate		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	0.88	Slope	1.00
					Sandiness	0.50
Tell	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
918D3:						
Marseilles	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
Atlas	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
					Stickiness	0.50
					Wetness	0.50
943D3:						
Seaton	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
Timula	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
943G:						
Seaton	Very severe		Severe		Poorly suited	
	Slope/erodibility	1.00	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50

Table 9b.--Forestland Management--Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
943G:						
Timula	Very severe		Severe		Poorly suited	
	Slope/erodibility	1.00	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
946D2:						
Hickory	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
Atlas	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
					Wetness	0.50
946D3:						
Hickory	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
Atlas	Moderate		Moderate		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	0.88	Slope	1.00
					Low strength	0.50
					Stickiness	0.50
					Wetness	0.50
957D3:						
Elco	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
Atlas	Moderate		Moderate		Poorly suited	
	Slope/erodibility	0.27	Slope/erodibility	0.88	Slope	1.00
					Stickiness	0.50
					Low strength	0.50
					Wetness	0.50
962D3:						
Sylvan	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00
					Low strength	0.50
Bold	Moderate		Severe		Poorly suited	
	Slope/erodibility	0.34	Slope/erodibility	1.00	Slope	1.00

Table 9c.--Forestland Management

(Only the soils suitable for production of commercial trees are listed. 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. See text for further explanation of ratings in this table)

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
8D2, 8D3:						
Hickory	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
8F, 8F2:						
Hickory	Moderately suited		Unsuited		Moderately suited	
	Stickiness	0.50	Slope	1.00	Low strength	0.50
			Stickiness	0.50	Slope	0.50
17A:						
Keomah	Well suited		Well suited		Moderately suited	
					Low strength	0.50
19D2, 19D3:						
Sylvan	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
19F:						
Sylvan	Moderately suited		Unsuited		Moderately suited	
	Stickiness	0.50	Slope	1.00	Low strength	0.50
			Stickiness	0.50	Slope	0.50
22D2, 22D3:						
Westville	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
88A, 88B:						
Sparta	Moderately suited		Moderately suited		Moderately suited	
	Sandiness	0.50	Sandiness	0.50	Sandiness	0.50
88C:						
Sparta	Moderately suited		Moderately suited		Moderately suited	
	Sandiness	0.50	Slope	0.50	Sandiness	0.50
			Sandiness	0.50		
274B:						
Seaton	Well suited		Well suited		Moderately suited	
					Low strength	0.50
274C2, 274D2:						
Seaton	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50
279A, 279B:						
Rozetta	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Stickiness	0.50	Low strength	0.50
280B:						
Fayette	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Stickiness	0.50	Low strength	0.50

Table 9c.--Forestland Management--Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
280C2, 280D2, 280D3:						
Fayette	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
549D2:						
Marseilles	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
549F, 549F2:						
Marseilles	Moderately suited		Unsuited		Moderately suited	
	Stickiness	0.50	Slope	1.00	Low strength	0.50
			Stickiness	0.50	Slope	0.50
565A, 565B:						
Tell	Well suited		Well suited		Moderately suited	
					Low strength	0.50
565C2:						
Tell	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50
618C2, 618D2:						
Senachwine	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50
675A, 675B:						
Greenbush	Well suited		Well suited		Moderately suited	
					Low strength	0.50
675C2:						
Greenbush	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
689B:						
Coloma	Moderately suited		Moderately suited		Moderately suited	
	Sandiness	0.50	Sandiness	0.50	Sandiness	0.50
689D:						
Coloma	Moderately suited		Moderately suited		Moderately suited	
	Sandiness	0.50	Slope	0.50	Sandiness	0.50
			Sandiness	0.50		
741B:						
Oakville	Moderately suited		Moderately suited		Moderately suited	
	Sandiness	0.50	Sandiness	0.50	Sandiness	0.50
741D:						
Oakville	Moderately suited		Moderately suited		Moderately suited	
	Sandiness	0.50	Slope	0.50	Sandiness	0.50
			Sandiness	0.50		
741F:						
Oakville	Moderately suited		Poorly suited		Moderately suited	
	Sandiness	0.50	Slope	0.75	Sandiness	0.50
			Sandiness	0.50	Slope	0.50

Table 9c.--Forestland Management--Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
911G:						
Timula	Moderately suited		Unsuited		Poorly suited	
	Slope	0.50	Slope	1.00	Slope	1.00
					Low strength	0.50
Hickory	Moderately suited		Unsuited		Poorly suited	
	Slope	0.50	Slope	1.00	Slope	1.00
	Stickiness	0.50	Stickiness	0.50	Low strength	0.50
913D, 913D3:						
Marseilles	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
Hickory	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
913F, 913F2:						
Marseilles	Moderately suited		Unsuited		Moderately suited	
	Stickiness	0.50	Slope	1.00	Low strength	0.50
			Stickiness	0.50	Slope	0.50
Hickory	Moderately suited		Unsuited		Moderately suited	
	Stickiness	0.50	Slope	1.00	Low strength	0.50
			Stickiness	0.50	Slope	0.50
917B:						
Oakville	Moderately suited		Moderately suited		Moderately suited	
	Sandiness	0.50	Sandiness	0.50	Sandiness	0.50
Tell	Well suited		Well suited		Moderately suited	
					Low strength	0.50
917C2, 917D, 917D2:						
Oakville	Moderately suited		Moderately suited		Moderately suited	
	Sandiness	0.50	Slope	0.50	Sandiness	0.50
			Sandiness	0.50		
Tell	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50
918D3:						
Marseilles	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
Atlas	Poorly suited		Poorly suited		Moderately suited	
	Stickiness	0.75	Stickiness	0.75	Low strength	0.50
			Slope	0.50	Stickiness	0.50
943D3:						
Seaton	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50
Timula	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50

Table 9c.--Forestland Management--Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
943G:						
Seaton	Moderately suited		Unsuited		Poorly suited	
	Slope	0.50	Slope	1.00	Slope	1.00
					Low strength	0.50
Timula	Moderately suited		Unsuited		Poorly suited	
	Slope	0.50	Slope	1.00	Slope	1.00
					Low strength	0.50
946D2:						
Hickory	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
Atlas	Poorly suited		Poorly suited		Moderately suited	
	Stickiness	0.75	Stickiness	0.75	Low strength	0.50
			Slope	0.50		
946D3:						
Hickory	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
Atlas	Poorly suited		Poorly suited		Moderately suited	
	Stickiness	0.75	Stickiness	0.75	Low strength	0.50
			Slope	0.50	Stickiness	0.50
957D3:						
Elco	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
Atlas	Poorly suited		Poorly suited		Moderately suited	
	Stickiness	0.75	Stickiness	0.75	Low strength	0.50
			Slope	0.50	Stickiness	0.50
962D3:						
Sylvan	Moderately suited		Moderately suited		Moderately suited	
	Stickiness	0.50	Slope	0.50	Low strength	0.50
			Stickiness	0.50		
Bold	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50

Table 9d.--Forestland Management

(Only the soils suitable for production of commercial trees are listed. 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. See text for further explanation of ratings in this table)

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
8D2, 8D3:				
Hickory	Well suited		Well suited	
8F, 8F2:				
Hickory	Poorly suited		Poorly suited	
	Slope	0.50	Slope	0.50
17A:				
Keomah	Well suited		Well suited	
19D2, 19D3:				
Sylvan	Well suited		Well suited	
19F:				
Sylvan	Poorly suited		Poorly suited	
	Slope	0.50	Slope	0.50
22D2, 22D3:				
Westville	Well suited		Well suited	
88A, 88B, 88C:				
Sparta	Well suited		Well suited	
274B, 274C2, 274D2:				
Seaton	Well suited		Well suited	
279A, 279B:				
Rozetta	Well suited		Well suited	
280B, 280C2, 280D2, 280D3:				
Fayette	Well suited		Well suited	
549D2:				
Marseilles	Well suited		Well suited	
549F, 549F2:				
Marseilles	Poorly suited		Poorly suited	
	Slope	0.50	Slope	0.50
565A, 565B, 565C2:				
Tell	Well suited		Well suited	
618C2, 618D2:				
Senachwine	Well suited		Well suited	
675A, 675B, 675C2:				
Greenbush	Well suited		Well suited	
689B, 689D:				
Coloma	Well suited		Well suited	

Table 9d.--Forestland Management--Continued

Map symbol and soil name	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
741B, 741D:				
Oakville	Well suited		Well suited	
741F:				
Oakville	Poorly suited		Poorly suited	
	Slope	0.50	Slope	0.50
911G:				
Timula	Unsuited		Unsuited	
	Slope	1.00	Slope	1.00
Hickory	Unsuited		Unsuited	
	Slope	1.00	Slope	1.00
913D, 913D3:				
Marseilles	Well suited		Well suited	
Hickory	Well suited		Well suited	
913F, 913F2:				
Marseilles	Poorly suited		Poorly suited	
	Slope	0.50	Slope	0.50
Hickory	Poorly suited		Poorly suited	
	Slope	0.50	Slope	0.50
917B, 917C2, 917D, 917D2:				
Oakville	Well suited		Well suited	
Tell	Well suited		Well suited	
918D3:				
Marseilles	Well suited		Well suited	
Atlas	Poorly suited		Well suited	
	Stickiness	0.50		
943D3:				
Seaton	Well suited		Well suited	
Timula	Well suited		Well suited	
943G:				
Seaton	Unsuited		Unsuited	
	Slope	1.00	Slope	1.00
Timula	Unsuited		Unsuited	
	Slope	1.00	Slope	1.00
946D2, 946D3:				
Hickory	Well suited		Well suited	
Atlas	Poorly suited		Well suited	
	Stickiness	0.50		
957D3:				
Elco	Well suited		Well suited	
Atlas	Poorly suited		Well suited	
	Stickiness	0.50		

Table 9d.--Forestland Management--Continued

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
962D3:				
Sylvan	Well suited		Well suited	
Bold	Well suited		Well suited	

Table 9e.--Forestland Management

(Only the soils suitable for production of commercial trees are listed. 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. See text for further explanation of ratings in this table)

Map symbol and soil name	Potential for damage to soil by fire		Potential for seedling mortality	
	Rating class and limiting features	Value	Rating class and limiting features	Value
8D2, 8D3, 8F, 8F2:				
Hickory	Moderate		Low	
	Texture/rock fragments	0.50		
17A:				
Keomah	Low		High	
	Texture/rock fragments	0.10	Wetness	1.00
19D2, 19D3:				
Sylvan	None		Low	
19F:				
Sylvan	Moderate		Low	
	Texture/rock fragments	0.50		
22D2:				
Westville	Low		Low	
	Texture/rock fragments	0.10		
22D3:				
Westville	Moderate		Low	
	Texture/rock fragments	0.50		
88A, 88B, 88C:				
Sparta	High		Low	
	Texture/rock fragments	1.00		
274B:				
Seaton	Low		Low	
	Texture/rock fragments	0.10		
274C2, 274D2:				
Seaton	Moderate		Low	
	Texture/rock fragments	0.50		
279A, 279B:				
Rozetta	Low		Low	
	Texture/rock fragments	0.10		
280B:				
Fayette	Low		Low	
	Texture/rock fragments	0.10		

Table 9e.--Forestland Management--Continued

Map symbol and soil name	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
280C2, 280D2:				
Fayette	Moderate		Low	
	Texture/rock fragments	0.50		
280D3:				
Fayette	None		Low	
549D2, 549F, 549F2:				
Marseilles	Low		Low	
	Texture/rock fragments	0.10		
565A, 565B, 565C2:				
Tell	Low		Low	
	Texture/rock fragments	0.10		
618C2, 618D2:				
Senachwine	Low		Low	
	Texture/rock fragments	0.10		
675A, 675B, 675C2:				
Greenbush	Low		Low	
	Texture/rock fragments	0.10		
689B, 689D:				
Coloma	High		Low	
	Texture/rock fragments	1.00		
741B, 741D, 741F:				
Oakville	High		Low	
	Texture/rock fragments	1.00		
911G:				
Timula	Moderate		Low	
	Texture/rock fragments	0.50		
Hickory	None		Low	
913D:				
Marseilles	Low		Low	
	Texture/rock fragments	0.10		
Hickory	Moderate		Low	
	Texture/rock fragments	0.50		
913D3:				
Marseilles	None		Low	
Hickory	Moderate		Low	
	Texture/rock fragments	0.50		

Table 9e.--Forestland Management--Continued

Map symbol and soil name	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
913F:				
Marseilles	Low		Low	
	Texture/rock fragments	0.10		
Hickory	Moderate		Low	
	Texture/rock fragments	0.50		
913F2:				
Marseilles	None		Low	
Hickory	Moderate		Low	
	Texture/rock fragments	0.50		
917B, 917C2, 917D, 917D2:				
Oakville	High		Low	
	Texture/rock fragments	1.00		
Tell	Low		Low	
	Texture/rock fragments	0.10		
918D3:				
Marseilles	None		Low	
Atlas	High		High	
	Texture/surface depth/coarse fragments	1.00	Wetness	1.00
943D3:				
Seaton	None		Low	
Timula	Moderate		Low	
	Texture/rock fragments	0.50		
943G:				
Seaton	Low		Low	
	Texture/rock fragments	0.10		
Timula	Moderate		Low	
	Texture/rock fragments	0.50		
946D2:				
Hickory	Moderate		Low	
	Texture/rock fragments	0.50		
Atlas	Low		High	
	Texture/rock fragments	0.10	Wetness	1.00
946D3:				
Hickory	Moderate		Low	
	Texture/rock fragments	0.50		

Table 9e.--Forestland Management--Continued

Map symbol and soil name	Potential for damage to soil by fire		Potential for seedling mortality	
	Rating class and limiting features	Value	Rating class and limiting features	Value
946D3:				
Atlas	None		High	
			Wetness	1.00
957D3:				
Elco	None		Low	
Atlas	None		High	
			Wetness	1.00
962D3:				
Sylvan	None		Low	
Bold	Moderate		Moderate	
	Texture/rock fragments	0.50	Lime	0.50
			Soil reaction	0.50

Table 10.--Windbreaks and Environmental Plantings

(Only the soils suitable for windbreaks and environmental plantings are listed. Absence of an entry indicates that trees generally do not grow to the given height)

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of-- <8	8-15	16-25	26-35	>35
8D2, 8D3, 8F, 8F2: Hickory	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
17A: Keomah	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
19D2, 19D3, 19F: Sylvan	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
22D2, 22D3:					
Westville	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
43A:					
Ipava	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
45A:					
Denny	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
49A:					
Watseka	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
51A:					
Muscatune	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
67A:					
Harpster	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
68A:					
Sable	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
69A:					
Milford	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
81A:					
Littleton	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
86B, 86C2:					
Osco	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
87A, 87B, 87B2, 87C2:					
Dickinson	American cranberrybush, American hazelnut, black chokeberry, common chokecherry, common elderberry, common juniper, coralberry, mapleleaf viburnum, silky dogwood	American plum, bur oak, chinkapin oak, common serviceberry, eastern redcedar, nannyberry, prairie crabapple, roughleaf dogwood, smooth sumac	Black oak, common hackberry, eastern white pine, green ash	Carolina poplar	---
88A, 88B, 88C:					
Sparta	American hazelnut, common elderberry, common winterberry, coralberry, mapleleaf viburnum, silky dogwood	American plum, American witchhazel, alternateleaf dogwood, blackhaw, common chokecherry, common serviceberry, nannyberry, prairie crabapple, roughleaf dogwood, southern arrowwood, staghorn sumac	Washington hawthorn, blue spruce, common hackberry, eastern redcedar, green ash, red maple	Carolina poplar	Eastern white pine

Table 10.--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
100A:					
Palms	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Common serviceberry, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, common persimmon	Green ash, pin oak, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood
102A:					
La Hogue	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
119D2, 119D3:					
Elco	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
125A: Selma	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
148B, 148C2: Proctor	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
149A: Brenton	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
152A:					
Drummer	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
153A:					
Pella	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
172A:					
Hoopeston	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
198A: Elburn	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
199A, 199B, 199C2: Plano	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
200A: Orio	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
201A:					
Gilford	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
206A:					
Thorp	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
212B, 212D3:					
Thebes	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
219A: Millbrook	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
250C2, 250D2, 250E2: Velma	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
257A: Clarksdale	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
259B, 259C2, 259D2:					
Assumption	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
261A:					
Niota	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
262A:					
Denrock	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
274B, 274C2, 274D2:					
Seaton	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
275A:					
Joy	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
277C2:					
Port Byron	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
279A, 279B:					
Rozetta	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
280B, 280C2, 280D2, 280D3:					
Fayette	American hazelnut, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, black walnut, blackgum, common hackberry, green ash, northern red oak, norway spruce, pin oak, red pine, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
430A, 430B:					
Raddle	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
457A: Booker	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
465A: Montgomery	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
485A, 485B: Richwood	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
487A:					
Joyce-------------------	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
488A:					
Hooppole----------------	Common winterberry, gray dogwood, redosier dogwood	Common pawpaw, nannyberry, roughleaf dogwood, silky dogwood	Arborvitae, bur oak, common hackberry, eastern redcedar, green hawthorn	Carolina poplar, eastern cottonwood, green ash	---
546B, 546C2:					
Keltner-----------------	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
549D2, 549F, 549F2:					
Marseilles--------------	American cranberrybush, American hazelnut, black chokeberry, common chokecherry, common elderberry, common juniper, coralberry, mapleleaf viburnum, silky dogwood	American plum, bur oak, chinkapin oak, common serviceberry, eastern redcedar, nannyberry, prairie crabapple, roughleaf dogwood, smooth sumac	Black oak, common hackberry, eastern white pine, green ash	Carolina poplar-----	---

Table 10.--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
564A, 564B, 564B2:					
Waukegan	American cranberrybush, American hazelnut, black chokeberry, common chokecherry, common elderberry, common juniper, coralberry, mapleleaf viburnum, silky dogwood	American plum, bur oak, chinkapin oak, common serviceberry, eastern redcedar, nannyberry, prairie crabapple, roughleaf dogwood, smooth sumac	Black oak, common hackberry, eastern white pine, green ash	Carolina poplar	---
565A, 565B, 565C2:					
Tell	American cranberrybush, American hazelnut, black chokeberry, common chokecherry, common elderberry, common juniper, coralberry, mapleleaf viburnum, silky dogwood	American plum, bur oak, chinkapin oak, common serviceberry, eastern redcedar, nannyberry, prairie crabapple, roughleaf dogwood, smooth sumac	Black oak, common hackberry, eastern white pine, green ash	Carolina poplar	---
567D2:					
Elkhart	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
572A, 572B, 572C2:					
Loran	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
618C2, 618D2: Senachwine	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
670A: Aholt	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
671A, 671B: Biggsville	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
672A, 672B, 672D3: Cresent	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
675A, 675B, 675C2: Greenbush	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
684B, 684C2: Broadwell	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
686A, 686B, 686B2: Parkway	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
689B, 689D: Coloma	American hazelnut, common elderberry, common winterberry, coralberry, mapleleaf viburnum, silky dogwood	American plum, American witchhazel, alternateleaf dogwood, blackhaw, common chokecherry, common serviceberry, nannyberry, prairie crabapple, roughleaf dogwood, southern arrowwood, staghorn sumac	Washington hawthorn, blue spruce, common hackberry, eastern redcedar, green ash, red maple	Carolina poplar	Eastern white pine
705A: Buckhart	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
741B, 741D, 741F: Oakville	American hazelnut, common elderberry, common winterberry, coralberry, mapleleaf viburnum, silky dogwood	American plum, American witchhazel, alternateleaf dogwood, blackhaw, common chokecherry, common serviceberry, nannyberry, prairie crabapple, roughleaf dogwood, southern arrowwood, staghorn sumac	Washington hawthorn, blue spruce, common hackberry, eastern redcedar, green ash, red maple	Carolina poplar	Eastern white pine

Table 10.--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
764A, 764B:					
Coyne	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
767A:					
Prophetstown	Common winterberry, gray dogwood, redosier dogwood	Common pawpaw, nannyberry, roughleaf dogwood, silky dogwood	Arborvitae, bur oak, common hackberry, eastern redcedar, green hawthorn	Carolina poplar, eastern cottonwood, green ash	---
777A:					
Adrian	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Common serviceberry, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, common persimmon	Green ash, pin oak, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood
871B, 871G:					
Lenzburg	American hazelnut, coralberry, mapleleaf viburnum, redosier dogwood	Common serviceberry, downy arrowwood, eastern redcedar, southern arrowwood	Austrian pine, blue spruce, bur oak, chinkapin oak, common hackberry, green ash	Eastern cottonwood	Carolina poplar

Table 10.--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
911G:					
Timula	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
Hickory	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
913D, 913D3, 913F, 913F2:					
Marseilles	American cranberrybush, American hazelnut, black chokeberry, common chokecherry, common elderberry, common juniper, coralberry, mapleleaf viburnum, silky dogwood	American plum, bur oak, chinkapin oak, common serviceberry, eastern redcedar, nannyberry, prairie crabapple, roughleaf dogwood, smooth sumac	Black oak, common hackberry, eastern white pine, green ash	Carolina poplar	---
Hickory	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
917B, 917C2, 917D, 917D2:					
Oakville	American hazelnut, common elderberry, common winterberry, coralberry, mapleleaf viburnum, silky dogwood	American plum, American witchhazel, alternateleaf dogwood, blackhaw, common chokecherry, common serviceberry, nannyberry, prairie crabapple, roughleaf dogwood, southern arrowwood, staghorn sumac	Washington hawthorn, blue spruce, common hackberry, eastern redcedar, green ash, red maple	Carolina poplar	Eastern white pine
Tell	American cranberrybush, American hazelnut, black chokeberry, common chokecherry, common elderberry, common juniper, coralberry, mapleleaf viburnum, silky dogwood	American plum, bur oak, chinkapin oak, common serviceberry, eastern redcedar, nannyberry, prairie crabapple, roughleaf dogwood, smooth sumac	Black oak, common hackberry, eastern white pine, green ash	Carolina poplar	---
918D3:					
Marseilles	American cranberrybush, American hazelnut, black chokeberry, common chokecherry, common elderberry, common juniper, coralberry, mapleleaf viburnum, silky dogwood	American plum, bur oak, chinkapin oak, common serviceberry, eastern redcedar, nannyberry, prairie crabapple, roughleaf dogwood, smooth sumac	Black oak, common hackberry, eastern white pine, green ash	Carolina poplar	---

Table 10.--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
918D3:					
Atlas	American cranberrybush, American hazelnut, black chokeberry, common juniper, coralberry, gray dogwood, mapleleaf viburnum, silky dogwood	American plum, American witchhazel, Washington hawthorn, blackhaw, common chokecherry, common serviceberry, nannyberry, prairie crabapple, roughleaf dogwood, staghorn sumac	Virginia pine, arborvitae, black oak, blackgum, bur oak, chinkapin oak, common hackberry, eastern redcedar, green ash	Norway spruce	Carolina poplar
943D3, 943G:					
Seaton	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
Timula	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
946D2, 946D3:					
Hickory	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
Atlas	American cranberrybush, American hazelnut, black chokeberry, common juniper, coralberry, gray dogwood, mapleleaf viburnum, silky dogwood	American plum, American witchhazel, Washington hawthorn, blackhaw, common chokecherry, common serviceberry, nannyberry, prairie crabapple, roughleaf dogwood, staghorn sumac	Virginia pine, arborvitae, black oak, blackgum, bur oak, chinkapin oak, common hackberry, eastern redcedar, green ash	Norway spruce	Carolina poplar
957D3:					
Elco	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine

Table 10.--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
957D3:					
Atlas	American cranberrybush, American hazelnut, black chokeberry, common juniper, coralberry, gray dogwood, mapleleaf viburnum, silky dogwood	American plum, American witchhazel, Washington hawthorn, blackhaw, common chokecherry, common serviceberry, nannyberry, prairie crabapple, roughleaf dogwood, staghorn sumac	Virginia pine, arborvitae, black oak, blackgum, bur oak, chinkapin oak, common hackberry, eastern redcedar, green ash	Norway spruce	Carolina poplar
962D3:					
Sylvan	American hazelnut, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, coralberry, mapleleaf viburnum, redosier dogwood, silky dogwood	American plum, American witchhazel, blackhaw, common chokecherry, common serviceberry, prairie crabapple, roughleaf dogwood, smooth sumac, southern arrowwood	Washington hawthorn, arborvitae, blue spruce, common persimmon, eastern redcedar, nannyberry, pecan, white oak	Douglas fir, Norway spruce, black walnut, blackgum, common hackberry, green ash, northern red oak, pin oak, tuliptree	Carolina poplar, eastern cottonwood, eastern white pine
Bold	American hazelnut, common winterberry, gray dogwood, redosier dogwood	Blackhaw, common chokecherry, pawpaw, nannyberry, roughleaf dogwood, silky dogwood	American sycamore, arborvitae, blue spruce, bur oak, chinkapin oak, common hackberry, eastern redcedar, green ash	Carolina poplar, eastern cottonwood	---
3070A:					
Beaucoup	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
3074A:					
Radford	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
3107+, 3107A:					
Sawmill	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
3284A:					
Tice	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
3302A: Ambraw	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
3400A: Calco	Common winterberry, gray dogwood, redosier dogwood	Common pawpaw, nannyberry, roughleaf dogwood, silky dogwood	Arborvitae, bur oak, common hackberry, eastern redcedar, green hawthorn	Carolina poplar, eastern cottonwood, green ash	---
3415A: Orion	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
7100A: Palms	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Common serviceberry, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, common persimmon	Green ash, pin oak, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood

Table 10.--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
7302A:					
Ambraw	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
7404A:					
Titus	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
7654A:					
Moline	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
7682A:					
Medway	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
7777A:					
Adrian	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Common serviceberry, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, common persimmon	Green ash, pin oak, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood
8107+:					
Sawmill	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak

Table 10.--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
8166A:					
Cohoctah	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
8284A:					
Tice	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
8302A:					
Ambraw	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
8400A:					
Calco	Common winterberry, gray dogwood, redosier dogwood	Common pawpaw, nannyberry, roughleaf dogwood, silky dogwood	Arborvitae, bur oak, common hackberry, eastern redcedar, green hawthorn	Carolina poplar, eastern cottonwood, green ash	---

Table 10.--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
8415A: Orion	American cranberrybush, Canada yew, black chokeberry, common elderberry, common juniper, common ninebark, common winterberry, northern spicebush, redosier dogwood, silky dogwood	Blackhaw, cockspur hawthorn, common pawpaw, common serviceberry, prairie crabapple, roughleaf dogwood, rusty blackhaw, southern arrowwood, witchhazel	Austrian pine, Douglas fir, arborvitae, blue spruce, common persimmon, eastern redcedar, green hawthorn, nannyberry, pecan, shingle oak	Norway spruce, blackgum, common hackberry, green ash, red maple, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
8492A: Normandy	Common winterberry, gray dogwood, redosier dogwood	Common pawpaw, nannyberry, roughleaf dogwood, silky dogwood	Arborvitae, bur oak, common hackberry, eastern redcedar, green hawthorn	Carolina poplar, eastern cottonwood, green ash	---
8499A: Fella	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Cockspur hawthorn, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, blackgum, common hackberry, green hawthorn, northern whitecedar, shingle oak	Green ash, red maple, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood, pin oak
8638A: Muskego	American cranberrybush, black chokeberry, buttonbush, common elderberry, common ninebark, common winterberry, gray dogwood, highbush blueberry, northern spicebush, redosier dogwood, silky dogwood	Common serviceberry, hazel alder, nannyberry, roughleaf dogwood	Arborvitae, common persimmon	Green ash, pin oak, river birch, swamp white oak, sweetgum	Carolina poplar, eastern cottonwood

Table 11a.--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. 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
8D2, 8D3:						
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
8F, 8F2:						
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
17A:						
Keomah	Very limited		Somewhat limited		Very limited	
	Depth to saturated zone	1.00	Restricted permeability	0.96	Depth to saturated zone	1.00
	Restricted permeability	0.96	Depth to saturated zone	0.94	Restricted permeability	0.96
19D2, 19D3:						
Sylvan	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
19F:						
Sylvan	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
22D2, 22D3:						
Westville	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
43A:						
Ipava	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Restricted permeability	0.21	Depth to saturated zone	0.39
	Restricted permeability	0.21	Depth to saturated zone	0.19	Restricted permeability	0.21
45A:						
Denny	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
49A:						
Watseka	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Too sandy	0.88	Depth to saturated zone	0.99
	Too sandy	0.88	Depth to saturated zone	0.78	Too sandy	0.88
51A:						
Muscatune	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
67A:						
Harpster	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
68A:						
Sable	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
69A:						
Milford	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
81A:						
Littleton	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
86B:						
Osco	Not limited		Not limited		Somewhat limited	
					Slope	0.28
86C2:						
Osco	Not limited		Not limited		Very limited	
					Slope	1.00
87A:						
Dickinson	Not limited		Not limited		Not limited	
87B, 87B2:						
Dickinson	Not limited		Not limited		Somewhat limited	
					Slope	0.28
87C2:						
Dickinson	Not limited		Not limited		Very limited	
					Slope	1.00
88A:						
Sparta	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.95	Too sandy	0.95	Too sandy	0.95
88B:						
Sparta	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.95	Too sandy	0.95	Too sandy	0.95
					Slope	0.50
88C:						
Sparta	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.95	Too sandy	0.95	Slope	1.00
	Slope	0.04	Slope	0.04	Too sandy	0.95

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
100A:						
Palms	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Content of organic matter	1.00	Content of organic matter	1.00	Ponding	1.00
102A:						
La Hogue	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
119D2, 119D3:						
Elco	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
	Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
125A:						
Selma	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
148B:						
Proctor	Not limited		Not limited		Somewhat limited	
					Slope	0.28
148C2:						
Proctor	Not limited		Not limited		Very limited	
					Slope	1.00
149A:						
Brenton	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
152A:						
Drummer	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
153A:						
Pella	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
172A:						
Hoopeston	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.81	Depth to saturated zone	0.48	Depth to saturated zone	0.81
198A:						
Elburn	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
199A:						
Plano	Not limited		Not limited		Not limited	

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
199B:						
Plano	Not limited		Not limited		Somewhat limited	
					Slope	0.28
199C2:						
Plano	Not limited		Not limited		Very limited	
					Slope	1.00
200A:						
Orio	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
201A:						
Gilford	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
206A:						
Thorp	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
212B:						
Thebes	Not limited		Not limited		Somewhat limited	
					Slope	0.28
212D3:						
Thebes	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
219A:						
Millbrook	Very limited		Somewhat limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.94	Depth to saturated zone	1.00
250C2:						
Velma	Not limited		Not limited		Very limited	
					Slope	1.00
250D2:						
Velma	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
250E2:						
Velma	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
257A:						
Clarksdale	Very limited		Somewhat limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.94	Depth to saturated zone	1.00
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
259B:						
Assumption	Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
					Slope	0.28
259C2:						
Assumption	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.43	Restricted permeability	0.43	Slope	1.00
					Restricted permeability	0.43
259D2:						
Assumption	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
	Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
261A:						
Niota	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
262A:						
Denrock	Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
	Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
274B:						
Seaton	Not limited		Not limited		Somewhat limited	
					Slope	0.28
274C2:						
Seaton	Not limited		Not limited		Very limited	
					Slope	1.00
274D2:						
Seaton	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
275A:						
Joy	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
277C2:						
Port Byron	Not limited		Not limited		Very limited	
					Slope	1.00
279A:						
Rozetta	Not limited		Not limited		Not limited	
279B:						
Rozetta	Not limited		Not limited		Somewhat limited	
					Slope	0.28

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
280B:						
Fayette	Not limited		Not limited		Somewhat limited	
					Slope	0.28
280C2:						
Fayette	Not limited		Not limited		Very limited	
					Slope	1.00
280D2, 280D3:						
Fayette	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
430A:						
Raddle	Not limited		Not limited		Not limited	
430B:						
Raddle	Not limited		Not limited		Somewhat limited	
					Slope	0.28
457A:						
Booker	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
	Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
465A:						
Montgomery	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
	Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
485A:						
Richwood	Not limited		Not limited		Not limited	
485B:						
Richwood	Not limited		Not limited		Somewhat limited	
					Slope	0.28
487A:						
Joyce	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.81	Depth to saturated zone	0.48	Depth to saturated zone	0.81
488A:						
Hooppole	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
546B:						
Keltner	Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
					Slope	0.28

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
546C2:						
Keltner	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.96	Restricted permeability	0.96	Slope	1.00
					Restricted permeability	0.96
549D2:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.99	Restricted permeability	0.99	Slope	1.00
	Slope	0.96	Slope	0.96	Restricted permeability	0.99
					Depth to bedrock	0.42
549F, 549F2:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
					Depth to bedrock	0.42
564A:						
Waukegan	Not limited		Not limited		Not limited	
564B, 564B2:						
Waukegan	Not limited		Not limited		Somewhat limited	
					Slope	0.28
565A:						
Tell	Not limited		Not limited		Not limited	
565B:						
Tell	Not limited		Not limited		Somewhat limited	
					Slope	0.28
565C2:						
Tell	Not limited		Not limited		Very limited	
					Slope	1.00
567D2:						
Elkhart	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
572A:						
Loran	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
572B:						
Loran	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
					Slope	0.28
572C2:						
Loran	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Slope	1.00
					Depth to saturated zone	0.39

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
618C2:						
Senachwine	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.21	Restricted permeability	0.21	Slope	1.00
					Restricted permeability	0.21
618D2:						
Senachwine	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
670A:						
Aholt	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Too clayey	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00	Too clayey	1.00
	Too clayey	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
671A:						
Biggsville	Not limited		Not limited		Not limited	
671B:						
Biggsville	Not limited		Not limited		Somewhat limited	
					Slope	0.28
672A:						
Cresent	Not limited		Not limited		Not limited	
672B:						
Cresent	Not limited		Not limited		Somewhat limited	
					Slope	0.28
672D3:						
Cresent	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
675A:						
Greenbush	Not limited		Not limited		Not limited	
675B:						
Greenbush	Not limited		Not limited		Somewhat limited	
					Slope	0.28
675C2:						
Greenbush	Not limited		Not limited		Very limited	
					Slope	1.00
684B:						
Broadwell	Not limited		Not limited		Somewhat limited	
					Slope	0.28
684C2:						
Broadwell	Not limited		Not limited		Very limited	
					Slope	1.00
686A:						
Parkway	Not limited		Not limited		Not limited	

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
686B, 686B2:						
Parkway	Not limited		Not limited		Somewhat limited	
					Slope	0.28
689B:						
Coloma	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Slope	0.50
689D:						
Coloma	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	0.37	Slope	0.37	Too sandy	1.00
705A:						
Buckhart	Not limited		Not limited		Not limited	
741B:						
Oakville	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Slope	0.50
741D:						
Oakville	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	0.37	Slope	0.37	Too sandy	1.00
741F:						
Oakville	Very limited		Very limited		Very limited	
	Slope	1.00	Too sandy	1.00	Slope	1.00
	Too sandy	1.00	Slope	1.00	Too sandy	1.00
764A:						
Coyne	Not limited		Not limited		Not limited	
764B:						
Coyne	Not limited		Not limited		Somewhat limited	
					Slope	0.28
767A:						
Prophetstown	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
777A:						
Adrian	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Content of organic matter	1.00	Content of organic matter	1.00	Ponding	1.00
800C:						
Psamments	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
	Slope	0.09	Slope	0.09	Slope	1.00

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
802B:						
Orthents	Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	0.21	Restricted permeability	0.21	Slope	0.50
					Restricted permeability	0.21
871B:						
Lenzburg	Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	0.21	Restricted permeability	0.21	Slope	0.50
					Gravel content	0.47
					Restricted permeability	0.21
871G:						
Lenzburg	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.21	Restricted permeability	0.21	Gravel content	0.47
					Restricted permeability	0.21
911G:						
Timula	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
913D, 913D3:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Restricted permeability	0.98	Restricted permeability	0.98	Slope	1.00
	Slope	0.96	Slope	0.96	Restricted permeability	0.98
					Depth to bedrock	0.42
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
913F:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
					Depth to bedrock	0.42
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
913F2:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.98	Restricted permeability	0.98	Restricted permeability	0.98
					Depth to bedrock	0.42
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
917B:						
Oakville	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Slope	0.50

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
917B:						
Tell	Not limited		Not limited		Somewhat limited	
					Slope	0.50
917C2:						
Oakville	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
					Slope	1.00
Tell	Not limited		Not limited		Very limited	
					Slope	1.00
917D:						
Oakville	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	0.37	Slope	0.37	Too sandy	1.00
Tell	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
917D2:						
Oakville	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	0.96	Slope	0.96	Too sandy	1.00
Tell	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
918D3:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
	Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
					Depth to bedrock	0.42
Atlas	Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Slope	0.96	Restricted permeability	1.00
	Slope	0.96	Depth to saturated zone	0.94	Depth to saturated zone	1.00
943D3:						
Seaton	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
Timula	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
943G:						
Seaton	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Timula	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
946D2, 946D3:						
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
946D2, 946D3:						
Atlas	Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Slope	0.96	Restricted permeability	1.00
	Slope	0.96	Depth to saturated zone	0.94	Depth to saturated zone	1.00
957D3:						
Elco	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
	Restricted permeability	0.43	Restricted permeability	0.43	Restricted permeability	0.43
Atlas	Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Restricted permeability	1.00	Slope	1.00
	Depth to saturated zone	1.00	Slope	0.96	Restricted permeability	1.00
	Slope	0.96	Depth to saturated zone	0.94	Depth to saturated zone	1.00
962D3:						
Sylvan	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
Bold	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.96	Slope	0.96	Slope	1.00
3070A:						
Beaucoup	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
3074A:						
Radford	Very limited		Somewhat limited		Very limited	
	Flooding	1.00	Depth to saturated zone	0.75	Flooding	1.00
	Depth to saturated zone	0.98	Flooding	0.40	Depth to saturated zone	0.98
3107+, 3107A:						
Sawmill	Very limited		Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00
3284A:						
Tice	Very limited		Somewhat limited		Very limited	
	Flooding	1.00	Depth to saturated zone	0.94	Flooding	1.00
	Depth to saturated zone	1.00	Flooding	0.40	Depth to saturated zone	1.00

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
3302A:						
Ambraw	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
3400A:						
Calco	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Ponding	1.00	Flooding	0.40	Ponding	1.00
3415A:						
Orion	Very limited		Somewhat limited		Very limited	
	Flooding	1.00	Depth to saturated zone	0.75	Flooding	1.00
	Depth to saturated zone	0.98	Flooding	0.40	Depth to saturated zone	0.98
7100A:						
Palms	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Ponding	1.00	Content of organic matter	1.00	Ponding	1.00
	Content of organic matter	1.00				
7302A:						
Ambraw	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Restricted permeability	0.21	Restricted permeability	0.21
	Restricted permeability	0.21				
7404A:						
Titus	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Restricted permeability	0.96	Restricted permeability	0.96
	Restricted permeability	0.96				
7654A:						
Moline	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Too clayey	1.00	Too clayey	1.00
	Too clayey	1.00	Restricted permeability	0.96	Restricted permeability	0.96
	Restricted permeability	0.96				

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
7682A:						
Medway	Very limited		Somewhat limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	0.43	Depth to saturated zone	0.77
	Depth to saturated zone	0.77				
7777A:						
Adrian	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Ponding	1.00	Content of organic matter	1.00	Ponding	1.00
	Content of organic matter	1.00				
8107+:						
Sawmill	Very limited		Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00			Flooding	0.60
8166A:						
Cohoctah	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00			Flooding	0.60
8284A:						
Tice	Very limited		Somewhat limited		Very limited	
	Flooding	1.00	Depth to saturated zone	0.94	Depth to saturated zone	1.00
	Depth to saturated zone	1.00			Flooding	0.60
8302A:						
Ambraw	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Restricted permeability	0.21	Flooding	0.60
	Restricted permeability	0.21			Restricted permeability	0.21
8400A:						
Calco	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00			Flooding	0.60
8415A:						
Orion	Very limited		Somewhat limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
	Depth to saturated zone	0.98			Flooding	0.60
8492A:						
Normandy	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00			Flooding	0.60

Table 11a.--Recreation--Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
8499A:						
Fella---------------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00			Flooding	0.60
8638A:						
Muskego-------------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Content of organic matter	1.00	Content of organic matter	1.00
	Content of organic matter	1.00	Restricted permeability	0.96	Restricted permeability	0.96
	Restricted permeability	0.96			Flooding	0.60

Table 11b.--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. 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
8D2, 8D3:						
Hickory	Not limited		Not limited		Somewhat limited	
					Slope	0.96
8F, 8F2:						
Hickory	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.04	Slope	1.00
17A:						
Keomah	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
19D2, 19D3:						
Sylvan	Not limited		Not limited		Somewhat limited	
					Slope	0.96
19F:						
Sylvan	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.04	Slope	1.00
22D2, 22D3:						
Westville	Not limited		Not limited		Somewhat limited	
					Slope	0.96
43A:						
Ipava	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
45A:						
Denny	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
49A:						
Watseka	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.88	Too sandy	0.88	Depth to saturated zone	0.78
	Depth to saturated zone	0.50	Depth to saturated zone	0.50	Droughty	0.04
51A:						
Muscatune	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
67A:						
Harpster	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00

Table 11b.--Recreation--Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
68A:						
Sable	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
69A:						
Milford	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
81A:						
Littleton	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
86B, 86C2:						
Osco	Not limited		Not limited		Not limited	
87A, 87B, 87B2, 87C2:						
Dickinson	Not limited		Not limited		Not limited	
88A, 88B:						
Sparta	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.95	Too sandy	0.95	Droughty	0.08
88C:						
Sparta	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.95	Too sandy	0.95	Droughty	0.07
					Slope	0.04
100A:						
Palms	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
102A:						
La Hogue	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
119D2, 119D3:						
Elco	Not limited		Not limited		Somewhat limited	
					Slope	0.96
125A:						
Selma	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
148B, 148C2:						
Proctor	Not limited		Not limited		Not limited	

Table 11b.--Recreation--Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
149A:						
Brenton	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
152A:						
Drummer	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
153A:						
Pella	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
172A:						
Hoopeston	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.11	Depth to saturated zone	0.11	Depth to saturated zone	0.48
198A:						
Elburn	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
199A, 199B, 199C2:						
Plano	Not limited		Not limited		Not limited	
200A:						
Orio	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
201A:						
Gilford	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
206A:						
Thorp	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
212B:						
Thebes	Not limited		Not limited		Not limited	
212D3:						
Thebes	Not limited		Not limited		Somewhat limited	
					Slope	0.96
219A:						
Millbrook	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
250C2:						
Velma	Not limited		Not limited		Not limited	

Table 11b.--Recreation--Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
250D2:						
Velma	Not limited		Not limited		Somewhat limited	
					Slope	0.96
250E2:						
Velma	Somewhat limited		Not limited		Very limited	
	Slope	0.76			Slope	1.00
257A:						
Clarksdale	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
259B, 259C2:						
Assumption	Not limited		Not limited		Not limited	
259D2:						
Assumption	Not limited		Not limited		Somewhat limited	
					Slope	0.96
261A:						
Niota	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
262A:						
Denrock	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
274B, 274C2:						
Seaton	Not limited		Not limited		Not limited	
274D2:						
Seaton	Not limited		Not limited		Somewhat limited	
					Slope	0.96
275A:						
Joy	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
277C2:						
Port Byron	Not limited		Not limited		Not limited	
279A, 279B:						
Rozetta	Not limited		Not limited		Not limited	
280B, 280C2:						
Fayette	Not limited		Not limited		Not limited	
280D2, 280D3:						
Fayette	Not limited		Not limited		Somewhat limited	
					Slope	0.96
430A, 430B:						
Raddle	Not limited		Not limited		Not limited	

Table 11b.--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
457A:						
Booker	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
465A:						
Montgomery	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
485A, 485B:						
Richwood	Not limited		Not limited		Not limited	
487A:						
Joyce	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.11	Depth to saturated zone	0.11	Depth to saturated zone	0.48
488A:						
Hooppole	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
546B, 546C2:						
Keltner	Not limited		Not limited		Not limited	
549D2:						
Marseilles	Not limited		Not limited		Somewhat limited	
					Slope	0.96
					Depth to bedrock	0.42
549F, 549F2:						
Marseilles	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.04	Slope	1.00
					Depth to bedrock	0.42
564A, 564B, 564B2:						
Waukegan	Not limited		Not limited		Not limited	
565A, 565B, 565C2:						
Tell	Not limited		Not limited		Not limited	
567D2:						
Elkhart	Not limited		Not limited		Somewhat limited	
					Slope	0.96
572A, 572B, 572C2:						
Loran	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
618C2:						
Senachwine	Not limited		Not limited		Not limited	
618D2:						
Senachwine	Not limited		Not limited		Somewhat limited	
					Slope	0.96

Table 11b.--Recreation--Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
670A:						
Aholt	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	1.00
	Too clayey	1.00	Too clayey	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
671A, 671B:						
Biggsville	Not limited		Not limited		Not limited	
672A, 672B:						
Cresent	Not limited		Not limited		Not limited	
672D3:						
Cresent	Not limited		Not limited		Somewhat limited	
					Slope	0.96
675A, 675B, 675C2:						
Greenbush	Not limited		Not limited		Not limited	
684B, 684C2:						
Broadwell	Not limited		Not limited		Not limited	
686A, 686B, 686B2:						
Parkway	Not limited		Not limited		Not limited	
689B:						
Coloma	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Too sandy	0.50
					Droughty	0.49
689D:						
Coloma	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.58
					Too sandy	0.50
					Slope	0.37
705A:						
Buckhart	Not limited		Not limited		Not limited	
741B:						
Oakville	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.40
741D:						
Oakville	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.40
					Slope	0.37
741F:						
Oakville	Very limited		Very limited		Very limited	
	Too sandy	1.00	Too sandy	1.00	Slope	1.00
	Slope	0.88			Droughty	0.62
764A, 764B:						
Coyne	Not limited		Not limited		Not limited	
767A:						
Prophetstown	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00

Table 11b.--Recreation--Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
777A:						
Adrian	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.001
800C:						
Psamments	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.69
					Too sandy	0.50
					Slope	0.09
802B:						
Orthents	Not limited		Not limited		Not limited	
871B:						
Lenzburg	Not limited		Not limited		Not limited	
871G:						
Lenzburg	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
911G:						
Timula	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
913D:						
Marseilles	Not limited		Not limited		Somewhat limited	
					Slope	0.96
					Depth to bedrock	0.42
Hickory	Not limited		Not limited		Somewhat limited	
					Slope	0.96
913D3:						
Marseilles	Not limited		Not limited		Somewhat limited	
					Slope	0.96
					Depth to bedrock	0.42
					Droughty	0.02
Hickory	Not limited		Not limited		Somewhat limited	
					Slope	0.96
913F, 913F2:						
Marseilles	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.01	Slope	1.00
					Depth to bedrock	0.42
Hickory	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.01	Slope	1.00
917B:						
Oakville	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.29
Tell	Not limited		Not limited		Not limited	

Table 11b.--Recreation--Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
917C2:						
Oakville	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.34
Tell	Not limited		Not limited		Not limited	
917D:						
Oakville	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Droughty	0.40
					Slope	0.37
Tell	Not limited		Not limited		Somewhat limited	
					Slope	0.37
917D2:						
Oakville	Very limited		Very limited		Somewhat limited	
	Too sandy	1.00	Too sandy	1.00	Slope	0.96
					Droughty	0.40
Tell	Not limited		Not limited		Somewhat limited	
					Slope	0.96
918D3:						
Marseilles	Not limited		Not limited		Somewhat limited	
					Slope	0.96
					Depth to bedrock	0.42
Atlas	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Slope	0.96
					Depth to saturated zone	0.94
943D3:						
Seaton	Not limited		Not limited		Somewhat limited	
					Slope	0.96
Timula	Not limited		Not limited		Somewhat limited	
					Slope	0.96
943G:						
Seaton	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Timula	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
946D2, 946D3:						
Hickory	Not limited		Not limited		Somewhat limited	
					Slope	0.96
Atlas	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Slope	0.96
					Depth to saturated zone	0.94
957D3:						
Elco	Not limited		Not limited		Somewhat limited	
					Slope	0.96

Table 11b.--Recreation--Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
957D3:						
Atlas	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Slope	0.96
					Depth to saturated zone	0.94
962D3:						
Sylvan	Not limited		Not limited		Somewhat limited	
					Slope	0.96
Bold	Not limited		Not limited		Somewhat limited	
					Slope	0.96
3070A:						
Beaucoup	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
3074A:						
Radford	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.75
3107+, 3107A:						
Sawmill	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
3284A:						
Tice	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.94
3302A:						
Ambraw	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
3400A:						
Calco	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
3415A:						
Orion	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.75

Table 11b.--Recreation--Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
7100A:						
Palms	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
7302A:						
Ambraw	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
7404A:						
Titus	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
7654A:						
Moline	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
7682A:						
Medway	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
7777A:						
Adrian	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
8107+:						
Sawmill	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
					Flooding	0.60
8166A:						
Cohoctah	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
					Flooding	0.60
8284A:						
Tice	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
					Flooding	0.60

Table 11b.--Recreation--Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
8302A:						
Ambraw	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
					Flooding	0.60
8400A:						
Calco	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
					Flooding	0.60
8415A:						
Orion	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
					Flooding	0.60
8492A:						
Normandy	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
					Flooding	0.60
8499A:						
Fella	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
					Flooding	0.60
8638A:						
Muskego	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Content of organic matter	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
					Carbonate content	1.00

Table 12.--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: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
8D2, 8D3:										
Hickory-----------	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
8F, 8F2:										
Hickory-----------	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
17A:										
Keomah------------	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
19D2, 19D3:										
Sylvan------------	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
19F:										
Sylvan------------	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
22D2, 22D3:										
Westville---------	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
43A:										
Ipava-------------	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
45A:										
Denny-------------	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
49A:										
Watseka-----------	Fair	Fair	Good	Good	Good	Fair	Poor	Fair	Good	Poor.
51A:										
Muscatune---------	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
67A:										
Harpster----------	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Fair	Fair.
68A:										
Sable-------------	Fair	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good.
69A:										
Milford-----------	Good	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
81A:										
Littleton---------	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
86B:										
Osco--------------	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
86C2:										
Osco--------------	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
87A, 87B, 87B2:										
Dickinson---------	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.

Table 12.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
87C2: Dickinson	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
88A, 88B: Sparta	Poor	Poor	Fair	Poor	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
88C: Sparta	Poor	Poor	Fair	Poor	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
100A: Palms	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
102A: La Hogue	Good	Good	Good	Good	Fair	Fair	Poor	Good	Good	Poor.
119D2, 119D3: Elco	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
125A: Selma	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair.
148B: Proctor	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
148C2: Proctor	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
149A: Brenton	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
152A: Drummer	Fair	Fair	Good	Fair	Fair	Good	Good	Fair	Fair	Good.
153A: Pella	Fair	Fair	Good	Fair	Fair	Good	Good	Fair	Fair	Good.
172A: Hoopeston	Fair	Good	Good	Good	Good	Fair	Poor	Good	Good	Poor.
198A: Elburn	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
199A, 199B: Plano	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
199C2: Plano	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
200A: Orio	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair.
201A: Gilford	Fair	Poor	Poor	Poor	Poor	Good	Good	Fair	Poor	Good.

Table 12.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
206A: Thorp	Poor	Fair	Good	Fair	Fair	Good	Good	Fair	Fair	Good.
212B: Thebes	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
212D3: Thebes	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
219A: Millbrook	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
250C2: Velma	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
250D2: Velma	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
250E2: Velma	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
257A: Clarksdale	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
259B: Assumption	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
259C2: Assumption	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Fair	Very poor.
259D2: Assumption	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
261A: Niota	Poor	Fair	Good	Fair	Fair	Good	Good	Fair	Fair	Good.
262A: Denrock	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
274B: Seaton	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
274C2: Seaton	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
274D2: Seaton	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
275A: Joy	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.

Table 12.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
277C2: Port Byron	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
279A, 279B: Rozetta	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
280B: Fayette	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
280C2: Fayette	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
280D2, 280D3: Fayette	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
430A, 430B: Raddle	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
457A: Booker	Very poor.	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
465A: Montgomery	Poor	Fair	Fair	Poor	Poor	Good	Good	Fair	Poor	Good.
485A, 485B: Richwood	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
487A: Joyce	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
488A: Hooppole	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair.
546B: Keltner	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
546C2: Keltner	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
549D2: Marseilles	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
549F, 549F2: Marseilles	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
564A, 564B, 564B2: Waukegan	Good	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.

Table 12.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
565A, 565B: Tell	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
565C2: Tell	Good	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
567D2: Elkhart	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
572A, 572B: Loran	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
572C2: Loran	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
618C2, 618D2: Senachwine	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
670A: Aholt	Fair	Fair	Fair	Fair	Poor	Good	Good	Fair	Fair	Good.
671A, 671B: Biggsville	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
672A, 672B: Cresent	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
672D3: Cresent	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
675A, 675B: Greenbush	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
675C2: Greenbush	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
684B: Broadwell	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
684C2: Broadwell	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
686A, 686B, 686B2: Parkway	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
689B, 689D: Coloma	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.

Table 12.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
705A:										
Buckhart	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
741B, 741D, 741F:										
Oakville	Poor	Poor	Fair	Poor	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
764A, 764B:										
Coyne	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
767A:										
Prophetstown	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair.
777A:										
Adrian	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
800C.										
Psamments										
802B.										
Orthents										
871B:										
Lenzburg	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
871G:										
Lenzburg	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
911G:										
Timula	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Hickory	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
913D, 913D3:										
Marseilles	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Hickory	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
913F, 913F2:										
Marseilles	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Hickory	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
917B:										
Oakville	Poor	Poor	Fair	Poor	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Tell	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.

Table 12.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herba-ceous plants	Hardwood trees	Conif-erous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
917C2, 917D, 917D2:										
Oakville	Poor	Poor	Fair	Poor	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Tell	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
918D3:										
Marseilles	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Atlas	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
943D3:										
Seaton	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Timula	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
943G:										
Seaton	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Timula	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
946D2, 946D3:										
Hickory	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Atlas	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
957D3:										
Elco	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Atlas	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
962D3:										
Sylvan	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Bold	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
3070A:										
Beaucoup	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
3074A:										
Radford	Poor	Fair	Fair	Good	Good	Fair	Fair	Fair	Good	Fair.
3107+, 3107A:										
Sawmill	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
3284A:										
Tice	Poor	Fair	Fair	Good	Good	Fair	Fair	Fair	Good	Fair.

Table 12.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herba-ceous plants	Hardwood trees	Conif-erous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
3302A:										
Ambraw	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
3400A:										
Calco	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
3415A:										
Orion	Poor	Fair	Fair	Good	Good	Fair	Fair	Good	Fair	Fair.
7100A:										
Palms	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
7302A:										
Ambraw	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
7404A:										
Titus	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
7654A:										
Moline	Poor	Fair	Fair	Fair	Poor	Good	Good	Poor	Poor	Good.
7682A:										
Medway	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
7777A:										
Adrian	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
8107+:										
Sawmill	Fair	Good	Good	Fair	Fair	Good	Good	Fair	Fair	Good.
8166A:										
Cohoctah	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
8284A:										
Tice	Fair	Fair	Fair	Good	Good	Fair	Fair	Fair	Good	Fair.
8302A:										
Ambraw	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
8400A:										
Calco	Fair	Fair	Good	Fair	Poor	Good	Good	Fair	Fair	Good.
8415A:										
Orion	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
8492A:										
Normandy	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
8499A:										
Fella	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
8638A:										
Muskego	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.

Table 13.--Hydric Soils

(Only the map units that have hydric components are listed. See text for a description of hydric qualities)

Map symbol and map unit name	Component	Hydric status	Local landform
17A:			
Keomah silt loam, 0 to 2 percent slopes	Keomah	No	ground moraine
	Denny	Yes	depression
43A:			
Ipava silt loam, 0 to 2 percent slopes	Ipava	No	ground moraine
	Denny	Yes	depression
	Sable	Yes	depression
45A:			
Denny silt loam, 0 to 2 percent slopes	Denny	Yes	depression
51A:			
Muscatune silt loam, 0 to 2 percent slopes	Muscatune	No	ground moraine
	Denny	Yes	depression
	Sable	Yes	depression
67A:			
Harpster silty clay loam, 0 to 2 percent slopes	Harpster	Yes	ground moraine
68A:			
Sable silty clay loam, 0 to 2 percent slopes	Sable	Yes	ground moraine
69A:			
Milford silty clay loam, 0 to 2 percent slopes	Milford	Yes	lake plain
86B:			
Osco silt loam, 2 to 5 percent slopes	Osco	No	ground moraine
	Denny	Yes	depression
	Sable	Yes	ground moraine, depression
86C2:			
Osco silt loam, 5 to 10 percent slopes, eroded	Osco	No	ground moraine
	Denny	Yes	depression
	Sable	Yes	ground moraine, depression
87A:			
Dickinson sandy loam, 0 to 2 percent slopes	Dickinson	No	outwash plain
	Gilford	Yes	outwash plain

Table 13.--Hydric Soils--Continued

Map symbol and map unit name	Component	Hydric status	Local landform
87B:			
Dickinson sandy loam, 2 to 5 percent slopes	Dickinson	No	dune
	Gilford	Yes	outwash plain
87B2:			
Dickinson sandy loam, 2 to 7 percent slopes, eroded	Dickinson	No	dune
	Gilford	Yes	outwash plain
	Selma	Yes	outwash plain
88A:			
Sparta loamy sand, 0 to 2 percent slopes	Sparta	No	outwash plain, stream terrace
	Orio	Yes	depression
88B:			
Sparta loamy sand, 1 to 6 percent slopes	Sparta	No	stream terrace
	Orio	Yes	depression
88C:			
Sparta loamy sand, 6 to 12 percent slopes	Sparta	No	dune
	Gilford	Yes	outwash plain
	Orio	Yes	depression
100A:			
Palms muck, 0 to 2 percent slopes	Palms	Yes	outwash plain
102A:			
La Hogue loam, 0 to 2 percent slopes	La Hogue	No	outwash plain
	Orio	Yes	depression
	Selma	Yes	outwash plain
125A:			
Selma loam, 0 to 2 percent slopes	Selma	Yes	outwash plain
148B:			
Proctor silt loam, 2 to 5 percent slopes	Proctor	No	outwash plain
	Drummer	Yes	outwash plain
148C2:			
Proctor silt loam, 5 to 10 percent slopes, eroded	Proctor	No	outwash plain
	Drummer	Yes	outwash plain
152A:			
Drummer silty clay loam, 0 to 2 percent slopes	Drummer	Yes	outwash plain
153A:			
Pella silty clay loam, 0 to 2 percent slopes	Pella	Yes	outwash plain

Table 13.--Hydric Soils--Continued

Map symbol and map unit name	Component	Hydric status	Local landform
172A:			
Hoopeston sandy loam, 0 to 2 percent slopes	Hoopeston	No	outwash plain
	Gilford	Yes	outwash plain
199A:			
Plano silt loam, 0 to 2 percent slopes	Plano	No	outwash plain, stream terrace
	Drummer	Yes	outwash plain
199B:			
Plano silt loam, 2 to 5 percent slopes	Plano	No	outwash plain, stream terrace
	Drummer	Yes	outwash plain
199C2:			
Plano silt loam, 5 to 10 percent slopes, eroded	Plano	No	outwash plain
	Drummer	Yes	outwash plain
200A:			
Orio loam, 0 to 2 percent slopes	Orio	Yes	depression, outwash plain
201A:			
Gilford fine sandy loam, 0 to 2 percent slopes	Gilford	Yes	outwash plain
206A:			
Thorp silt loam, 0 to 2 percent slopes	Thorp	Yes	outwash plain
257A:			
Clarksdale silt loam, 0 to 2 percent slopes	Clarksdale	No	ground moraine
	Denny	Yes	depression
261A:			
Niota silt loam, 0 to 2 percent slopes	Niota	Yes	lake plain
275A:			
Joy silt loam, 0 to 2 percent slopes	Joy	No	ground moraine
	Sable	Yes	depression
277C2:			
Port Byron silt loam, 5 to 10 percent slopes, eroded	Port Byron	No	ground moraine
	Sawmill	Yes	drainageway
457A:			
Booker silty clay, 0 to 2 percent slopes	Booker	Yes	lake plain
465A:			
Montgomery silty clay, 0 to 2 percent slopes	Montgomery	Yes	lake plain

Table 13.--Hydric Soils--Continued

Map symbol and map unit name	Component	Hydric status	Local landform
487A:			
Joyce silt loam, 0 to 2 percent slopes	Joyce	No	outwash plain
	Harpster	Yes	ground moraine
488A:			
Hooppole loam, 0 to 2 percent slopes	Hooppole	Yes	outwash plain
546C2:			
Keltner silt loam, 5 to 10 percent slopes, eroded	Keltner	No	valley side
	Sawmill	Yes	flood plain
565C2:			
Tell silt loam, 5 to 10 percent slopes, eroded	Tell	No	outwash plain
	Thorp	Yes	depression
670A:			
Aholt silty clay, 0 to 2 percent slopes	Aholt	Yes	lake plain
672A:			
Cresent loam, 0 to 2 percent slopes	Cresent	No	outwash plain
	Selma	Yes	outwash plain
672B:			
Cresent loam, 2 to 5 percent slopes	Cresent	No	outwash plain
	Selma	Yes	outwash plain
684C2:			
Broadwell silt loam, 5 to 10 percent slopes, eroded	Broadwell	No	outwash plain
	Sable	Yes	ground moraine
686A:			
Parkway silt loam, 0 to 2 percent slopes	Parkway	No	ground moraine
	Drummer	Yes	outwash plain
686B:			
Parkway silt loam, 2 to 5 percent slopes	Parkway	No	ground moraine
	Drummer	Yes	outwash plain
686B2:			
Parkway silt loam, 2 to 5 percent slopes, eroded	Parkway	No	ground moraine
	Drummer	Yes	outwash plain
705A:			
Buckhart silt loam, 0 to 2 percent slopes	Buckhart	No	knoll, ground moraine
	Denny	Yes	depression
	Sable	Yes	ground moraine, depression

Table 13.--Hydric Soils--Continued

Map symbol and map unit name	Component	Hydric status	Local landform
741B:			
Oakville fine sand, 1 to 7 percent slopes	Oakville	No	dune
	Orio	Yes	outwash plain
741D:			
Oakville fine sand, 7 to 15 percent slopes	Oakville	No	dune
	Orio	Yes	outwash plain
741F:			
Oakville fine sand, 20 to 30 percent slopes	Oakville	No	dune
	Orio	Yes	outwash plain
767A:			
Prophetstown silt loam, 0 to 2 percent slopes	Prophetstown	Yes	outwash plain
777A:			
Adrian muck, 0 to 2 percent slopes	Adrian	Yes	outwash plain
917B:			
Oakville-Tell complex, 1 to 7 percent slopes	Oakville	No	outwash plain
	Orio	Yes	depression
917D:			
Oakville-Tell complex, 7 to 15 percent slopes	Oakville	No	outwash plain
	Orio	Yes	depression
917D2:			
Oakville-Tell complex, 10 to 18 percent slopes, eroded	Oakville	No	outwash plain
	Orio	Yes	depression
3070A:			
Beaucoup silty clay loam, 0 to 2 percent slopes, frequently flooded	Beaucoup	Yes	flood plain
3107+:			
Sawmill silt loam, 0 to 2 percent slopes, frequently flooded, overwash	Sawmill	Yes	flood plain
3107A:			
Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded	Sawmill	Yes	flood plain
3302A:			
Ambraw silty clay loam, 0 to 2 percent slopes, frequently flooded	Ambraw	Yes	flood plain

Table 13.--Hydric Soils--Continued

Map symbol and map unit name	Component	Hydric status	Local landform
3400A:			
Calco silty clay loam, 0 to 2 percent slopes, frequently flooded	Calco	Yes	flood plain
3415A:			
Orion silt loam, 0 to 2 percent slopes, frequently flooded	Orion	No	flood plain
	Sawmill	Yes	flood plain
7100A:			
Palms muck, 0 to 2 percent slopes, rarely flooded	Palms	Yes	backswamp
7302A:			
Ambraw clay loam, 0 to 2 percent slopes, rarely flooded	Ambraw	Yes	flood plain
7404A:			
Titus silty clay loam, 0 to 2 percent slopes, rarely flooded	Titus	Yes	flood plain
7654A:			
Moline silty clay, 0 to 2 percent slopes, rarely flooded	Moline	Yes	flood plain
7682A:			
Medway loam, 0 to 2 percent slopes, rarely flooded	Medway	No	flood plain
	Ambraw	Yes	flood plain
7777A:			
Adrian muck, 0 to 2 percent slopes, rarely flooded	Adrian	Yes	flood plain
8107+:			
Sawmill silt loam, 0 to 2 percent slopes, occasionally flooded, overwash	Sawmill	Yes	flood plain
8166A:			
Cohoctah loam, 0 to 2 percent slopes, occasionally flooded	Cohoctah	Yes	flood plain
8284A:			
Tice silty clay loam, 0 to 2 percent slopes, occasionally flooded	Tice	No	flood plain
	Beaucoup	Yes	flood plain
8302A:			
Ambraw loam, 0 to 2 percent slopes, occasionally flooded	Ambraw	Yes	flood plain

Table 13.--Hydric Soils--Continued

Map symbol and map unit name	Component	Hydric status	Local landform
8400A:			
Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	Calco	Yes	flood plain
8415A:			
Orion silt loam, 0 to 2 percent slopes, occasionally flooded	Orion	No	flood plain
	Sawmill	Yes	flood plain
8492A:			
Normandy loam, 0 to 2 percent slopes, occasionally flooded	Normandy	Yes	flood plain
8499A:			
Fella silty clay loam, 0 to 2 percent slopes, occasionally flooded	Fella	Yes	flood plain
8638A:			
Muskego muck, 0 to 2 percent slopes, occasionally flooded	Muskego	Yes	flood plain

Table 14a.--Building Site Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. 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
8D2, 8D3:						
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
8F, 8F2:						
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
17A:						
Keomah	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
	Depth to saturated zone	1.00	Shrink-swell	0.50	Depth to saturated zone	1.00
19D2, 19D3:						
Sylvan	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50			Shrink-swell	0.50
19F:						
Sylvan	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50			Shrink-swell	0.50
22D2, 22D3:						
Westville	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
43A:						
Ipava	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
	Depth to saturated zone	0.44	Depth to saturated zone	1.00	Depth to saturated zone	0.44
45A:						
Denny	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
49A:						
Watseka	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
51A:						
Muscatune	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
67A:						
Harpster	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
68A:						
Sable	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
69A:						
Milford	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
81A:						
Littleton	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
86B:						
Osco	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
			Depth to saturated zone	0.15		
86C2:						
Osco	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.94
	Slope	0.12	Depth to saturated zone	0.15	Shrink-swell	0.50
			Slope	0.12		
87A, 87B, 87B2:						
Dickinson	Not limited		Not limited		Not limited	
87C2:						
Dickinson	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.12	Slope	0.12	Slope	0.94
88A:						
Sparta	Not limited		Not limited		Not limited	
88B:						
Sparta	Not limited		Not limited		Somewhat limited	
					Slope	0.10
88C:						
Sparta	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.32	Slope	0.32	Slope	1.00
100A:						
Palms	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
102A:						
La Hogue	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Shrink-swell	0.50			Shrink-swell	0.50
119D2, 119D3:						
Elco	Somewhat limited		Very limited		Very limited	
	Slope	0.98	Shrink-swell	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to saturated zone	0.99	Shrink-swell	0.50
			Slope	0.98		
125A:						
Selma	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
148B:						
Proctor	Somewhat limited		Not limited		Somewhat limited	
	Shrink-swell	0.50			Shrink-swell	0.50
148C2:						
Proctor	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.94
	Slope	0.12	Slope	0.12	Shrink-swell	0.50
149A:						
Brenton	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
152A:						
Drummer	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
153A:						
Pella	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
172A:						
Hoopeston	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.84	Depth to saturated zone	1.00	Depth to saturated zone	0.84
198A:						
Elburn	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
	Depth to saturated zone	0.44	Shrink-swell	0.50	Depth to saturated zone	0.44
199A, 199B:						
Plano	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
199C2:						
Plano	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.94
	Slope	0.12	Slope	0.12	Shrink-swell	0.50
200A:						
Orio	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50			Shrink-swell	0.50
201A:						
Gilford	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
206A:						
Thorp	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
212B:						
Thebes	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
212D3:						
Thebes	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50			Shrink-swell	0.50
219A:						
Millbrook	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
250C2:						
Velma	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.94
	Slope	0.12	Slope	0.12	Shrink-swell	0.50
250D2:						
Velma	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
250E2:						
Velma	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
257A:						
Clarksdale	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
	Depth to saturated zone	1.00	Shrink-swell	1.00	Depth to saturated zone	1.00

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
259B:						
Assumption----------	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	1.00	Shrink-swell	0.50
			Depth to saturated zone	0.99		
259C2:						
Assumption----------	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	1.00	Shrink-swell	1.00	Slope	0.94
	Slope	0.12	Depth to saturated zone	0.99	Shrink-swell	0.50
			Slope	0.12		
259D2:						
Assumption----------	Somewhat limited		Very limited		Very limited	
	Slope	0.98	Shrink-swell	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to saturated zone	0.99	Shrink-swell	0.50
			Slope	0.98		
261A:						
Niota---------------	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
262A:						
Denrock-------------	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
274B:						
Seaton--------------	Not limited		Not limited		Not limited	
274C2:						
Seaton--------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.12	Slope	0.12	Slope	0.94
274D2:						
Seaton--------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
275A:						
Joy-----------------	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
277C2:						
Port Byron----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.12	Slope	0.12	Slope	0.94
279A, 279B:						
Rozetta-------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
			Depth to saturated zone	0.15		
280B:						
Fayette-------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
280C2:						
Fayette	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.94
	Slope	0.12	Slope	0.12	Shrink-swell	0.50
280D2, 280D3:						
Fayette	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
430A, 430B:						
Raddle	Not limited		Not limited		Not limited	
457A:						
Booker	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
465A:						
Montgomery	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
485A, 485B:						
Richwood	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
487A:						
Joyce	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.84	Depth to saturated zone	1.00	Depth to saturated zone	0.84
488A:						
Hooppole	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
546B:						
Keltner	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
			Shrink-swell	0.50		
546C2:						
Keltner	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Slope	0.94
	Slope	0.12	Shrink-swell	0.50	Shrink-swell	0.50
			Slope	0.12		
549D2:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Depth to soft bedrock	0.42	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
549F, 549F2:						
Marseilles----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
			Depth to soft bedrock	0.42		
564A, 564B, 564B2:						
Waukegan------------	Not limited		Not limited		Not limited	
565A, 565B:						
Tell----------------	Somewhat limited		Not limited		Somewhat limited	
	Shrink-swell	0.50			Shrink-swell	0.50
565C2:						
Tell----------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Slope	0.12	Slope	0.94
	Slope	0.12			Shrink-swell	0.50
567D2:						
Elkhart-------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Depth to saturated zone	0.16	Shrink-swell	0.50
572A, 572B:						
Loran---------------	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
	Depth to saturated zone	0.44	Shrink-swell	0.50	Depth to saturated zone	0.44
572C2:						
Loran---------------	Somewhat limited		Very limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00	Slope	0.94
	Depth to saturated zone	0.44	Shrink-swell	0.50	Shrink-swell	0.50
	Slope	0.12	Slope	0.12	Depth to saturated zone	0.44
618C2:						
Senachwine----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Slope	0.12	Slope	0.94
	Slope	0.12			Shrink-swell	0.50
618D2:						
Senachwine----------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50			Shrink-swell	0.50
670A:						
Aholt---------------	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
671A, 671B:						
Biggsville----------	Not limited		Somewhat limited		Not limited	
			Depth to saturated zone	0.15		
672A, 672B:						
Cresent-------------	Not limited		Not limited		Not limited	

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
672D3:						
Cresent	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
675A, 675B:						
Greenbush	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
			Depth to saturated zone	0.15		
675C2:						
Greenbush	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.94
	Slope	0.12	Depth to saturated zone	0.15	Shrink-swell	0.50
			Slope	0.12		
684B:						
Broadwell	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
684C2:						
Broadwell	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.94
	Slope	0.12	Slope	0.12	Shrink-swell	0.50
686A, 686B, 686B2:						
Parkway	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
			Depth to saturated zone	0.15		
689B:						
Coloma	Not limited		Not limited		Somewhat limited	
					Slope	0.10
689D:						
Coloma	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.68	Slope	0.68	Slope	1.00
705A:						
Buckhart	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	0.99	Shrink-swell	0.50
			Shrink-swell	0.50		
741B:						
Oakville	Not limited		Not limited		Somewhat limited	
					Slope	0.10
741D:						
Oakville	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.68	Slope	0.68	Slope	1.00
741F:						
Oakville	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
764A, 764B:						
Coyne	Not limited		Not limited		Not limited	

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
767A:						
Prophetstown	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
777A:						
Adrian	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
800C:						
Psamments	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.40	Slope	0.40	Slope	1.00
802B:						
Orthents	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
					Slope	0.10
871B:						
Lenzburg	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
					Slope	0.10
871G:						
Lenzburg	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
911G:						
Timula	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
913D, 913D3:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Depth to soft bedrock	0.42	Shrink-swell	0.50
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
913F, 913F2:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to soft bedrock	0.42	Shrink-swell	0.50
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
917B:						
Oakville	Not limited		Not limited		Somewhat limited	
					Slope	0.10
Tell	Somewhat limited		Not limited		Somewhat limited	
	Shrink-swell	0.50			Shrink-swell	0.50
					Slope	0.10
917C2:						
Oakville	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.12	Slope	0.12	Slope	0.94
Tell	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Slope	0.12	Slope	0.94
	Slope	0.12			Shrink-swell	0.50
917D:						
Oakville	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.68	Slope	0.68	Slope	1.00
Tell	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.68	Slope	0.68	Slope	1.00
	Shrink-swell	0.50			Shrink-swell	0.50
917D2:						
Oakville	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
Tell	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50			Shrink-swell	0.50
918D3:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
			Depth to soft bedrock	0.42		
Atlas	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	1.00	Shrink-swell	1.00	Shrink-swell	1.00
	Slope	0.98	Slope	0.98	Depth to saturated zone	1.00
943D3:						
Seaton	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
Timula	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
943G:						
Seaton	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Timula	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
946D2, 946D3:						
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
946D2, 946D3:						
Atlas	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	1.00	Shrink-swell	1.00	Shrink-swell	1.00
	Slope	0.98	Slope	0.98	Depth to saturated zone	1.00
957D3:						
Elco	Somewhat limited		Very limited		Very limited	
	Slope	0.98	Shrink-swell	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to saturated zone	0.99	Shrink-swell	0.50
			Slope	0.98		
Atlas	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Depth to saturated zone	1.00	Slope	1.00
	Depth to saturated zone	1.00	Shrink-swell	1.00	Shrink-swell	1.00
	Slope	0.98	Slope	0.98	Depth to saturated zone	1.00
962D3:						
Sylvan	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
	Shrink-swell	0.50			Shrink-swell	0.50
Bold	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Slope	0.98	Slope	1.00
3070A:						
Beaucoup	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
3074A:						
Radford	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
			Shrink-swell	0.50		
3107+, 3107A:						
Sawmill	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
3284A:						
Tice	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--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
3302A:						
Ambraw	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
3400A:						
Calco	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
3415A:						
Orion	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
7100A:						
Palms	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00			Content of organic matter	1.00
7302A:						
Ambraw	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
7404A:						
Titus	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
7654A:						
Moline	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
7682A:						
Medway	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.80	Depth to saturated zone	1.00	Depth to saturated zone	0.80

Table 14a.--Building Site Development--Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
7777A:						
Adrian	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00			Content of organic matter	1.00
8107+:						
Sawmill	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
8166A:						
Cohoctah	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
8284A:						
Tice	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
8302A:						
Ambraw	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
8400A:						
Calco	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
8415A:						
Orion	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	1.00	Depth to saturated zone	0.99
8492A:						
Normandy	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14a.--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
8499A:						
Fella---------------	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
8638A:						
Muskego-------------	Very limited		Very limited		Very limited	
	Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 14b.--Building Site Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
8D2, 8D3:						
Hickory	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Slope	0.98	Slope	0.96
	Slope	0.98				
	Shrink-swell	0.50				
	Frost action	0.50				
8F, 8F2:						
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	1.00				
	Shrink-swell	0.50				
	Frost action	0.50				
17A:						
Keomah	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
	Low strength	1.00				
	Shrink-swell	1.00				
	Depth to saturated zone	0.94				
19D2, 19D3:						
Sylvan	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00				
	Slope	0.98				
	Shrink-swell	0.50				
19F:						
Sylvan	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
22D2, 22D3:						
Westville	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Slope	0.98	Slope	0.96
	Slope	0.98				
	Shrink-swell	0.50				
	Frost action	0.50				
43A:						
Ipava	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Low strength	1.00				
	Shrink-swell	1.00				
	Depth to saturated zone	0.19				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
45A:						
Denny	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	1.00				
49A:						
Watseka	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.78	Depth to saturated zone	1.00	Depth to saturated zone	0.78
	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.04
51A:						
Muscatune	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Low strength	1.00				
	Depth to saturated zone	0.75				
	Shrink-swell	0.50				
67A:						
Harpster	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
68A:						
Sable	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
69A:						
Milford	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Too clayey	0.50		
	Low strength	1.00				
	Shrink-swell	0.50				
81A:						
Littleton	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Low strength	1.00				
	Depth to saturated zone	0.75				
86B:						
Osco	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.15		
	Low strength	1.00				
	Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
86C2:						
Osco	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.15		
	Low strength	1.00	Slope	0.12		
	Shrink-swell	0.50				
	Slope	0.12				
87A, 87B, 87B2:						
Dickinson	Somewhat limited		Very limited		Not limited	
	Frost action	0.50	Cutbanks cave	1.00		
87C2:						
Dickinson	Somewhat limited		Very limited		Not limited	
	Frost action	0.50	Cutbanks cave	1.00		
	Slope	0.12	Slope	0.12		
88A, 88B:						
Sparta	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.08
88C:						
Sparta	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.32	Cutbanks cave	1.00	Droughty	0.07
			Slope	0.32	Slope	0.04
100A:						
Palms	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Low strength	0.50				
102A:						
La Hogue	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Low strength	1.00				
	Depth to saturated zone	0.75				
	Shrink-swell	0.50				
119D2, 119D3:						
Elco	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	0.99	Slope	0.96
	Low strength	1.00	Slope	0.98		
	Slope	0.98				
	Shrink-swell	0.50				
125A:						
Selma	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Shrink-swell	0.50				
	Low strength	0.28				
148B:						
Proctor	Very limited		Not limited		Not limited	
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
148C2:						
Proctor	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Slope	0.12		
	Low strength	1.00				
	Shrink-swell	0.50				
	Slope	0.12				
149A:						
Brenton	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Low strength	1.00				
	Depth to saturated zone	0.75				
	Shrink-swell	0.50				
152A:						
Drummer	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
153A:						
Pella	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
172A:						
Hoopeston	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.48
	Depth to saturated zone	0.48				
198A:						
Elburn	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Low strength	1.00				
	Shrink-swell	0.50				
	Depth to saturated zone	0.19				
199A:						
Plano	Very limited		Not limited		Not limited	
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
199B:						
Plano	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
	Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
199C2:						
Plano	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00	Slope	0.12		
	Shrink-swell	0.50				
	Slope	0.12				
200A:						
Orio	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Cutbanks cave	1.00		
	Shrink-swell	0.50				
	Low strength	0.05				
201A:						
Gilford	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Cutbanks cave	1.00		
206A:						
Thorp	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
212B:						
Thebes	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
	Shrink-swell	0.50				
212D3:						
Thebes	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Cutbanks cave	1.00	Slope	0.96
	Low strength	1.00	Slope	0.98		
	Slope	0.98				
	Shrink-swell	0.50				
219A:						
Millbrook	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
	Low strength	1.00				
	Depth to saturated zone	0.94				
	Shrink-swell	0.50				
250C2:						
Velma	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Slope	0.12		
	Low strength	1.00				
	Shrink-swell	0.50				
	Slope	0.12				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
250D2:						
Velma	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00				
	Slope	0.98				
	Shrink-swell	0.50				
250E2:						
Velma	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
257A:						
Clarksdale	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
	Low strength	1.00				
	Shrink-swell	1.00				
	Depth to saturated zone	0.94				
259B:						
Assumption	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.99		
	Low strength	1.00				
	Shrink-swell	0.50				
259C2:						
Assumption	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.99		
	Low strength	1.00				
	Shrink-swell	0.50	Slope	0.12		
	Slope	0.12				
259D2:						
Assumption	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	0.99	Slope	0.96
	Low strength	1.00				
	Slope	0.98	Slope	0.98		
	Shrink-swell	0.50				
261A:						
Niota	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Too clayey	0.50		
	Low strength	1.00				
	Shrink-swell	1.00				
262A:						
Denrock	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Low strength	1.00				
	Depth to saturated zone	0.75	Cutbanks cave	1.00		
			Too clayey	0.50		
	Shrink-swell	0.50				
274B:						
Seaton	Very limited		Not limited		Not limited	
	Frost action	1.00				
	Low strength	1.00				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
274C2:						
Seaton	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Slope	0.12		
	Low strength	1.00				
	Slope	0.12				
274D2:						
Seaton	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00				
	Slope	0.98				
275A:						
Joy	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Low strength	1.00				
	Depth to saturated zone	0.75				
277C2:						
Port Byron	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Slope	0.12		
	Low strength	1.00				
	Slope	0.12				
279A, 279B:						
Rozetta	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.15		
	Low strength	1.00				
	Shrink-swell	0.50				
280B:						
Fayette	Very limited		Not limited		Not limited	
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
280C2:						
Fayette	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Slope	0.12		
	Low strength	1.00				
	Shrink-swell	0.50				
	Slope	0.12				
280D2, 280D3:						
Fayette	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00				
	Slope	0.98				
	Shrink-swell	0.50				
430A, 430B:						
Raddle	Very limited		Not limited		Not limited	
	Frost action	1.00				
	Low strength	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
457A:						
Booker	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Too clayey	0.50	Too clayey	1.00
	Low strength	1.00				
	Frost action	0.50				
465A:						
Montgomery	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Too clayey	0.50	Too clayey	1.00
	Low strength	1.00				
	Shrink-swell	1.00				
485A, 485B:						
Richwood	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
	Shrink-swell	0.50				
487A:						
Joyce	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	0.48
	Low strength	1.00	Depth to saturated zone	1.00		
	Depth to saturated zone	0.48	Depth to dense layer	0.50		
488A:						
Hooppole	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
	Shrink-swell	0.50				
546B:						
Keltner	Very limited		Very limited		Not limited	
	Frost action	1.00	Depth to saturated zone	1.00		
	Low strength	1.00	Too clayey	0.50		
	Shrink-swell	0.50				
546C2:						
Keltner	Very limited		Very limited		Not limited	
	Frost action	1.00	Depth to saturated zone	1.00		
	Low strength	1.00	Too clayey	0.50		
	Shrink-swell	0.50	Slope	0.12		
	Slope	0.12				
549D2:						
Marseilles	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00	Depth to soft bedrock	0.42	Depth to bedrock	0.42
	Slope	0.98				
	Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
549F, 549F2:						
Marseilles----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	1.00	Depth to soft bedrock	0.42	Depth to bedrock	0.42
	Low strength	1.00				
	Shrink-swell	0.50				
564A, 564B:						
Waukegan------------	Somewhat limited		Very limited		Not limited	
	Low strength	0.90	Cutbanks cave	1.00		
564B2:						
Waukegan------------	Not limited		Very limited		Not limited	
		0.00	Cutbanks cave	1.00		
565A, 565B:						
Tell----------------	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
	Shrink-swell	0.50				
565C2:						
Tell----------------	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00	Slope	0.12		
	Shrink-swell	0.50				
	Slope	0.12				
567D2:						
Elkhart-------------	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00	Depth to saturated zone	0.16		
	Slope	0.98				
	Shrink-swell	0.50				
572A, 572B:						
Loran---------------	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Low strength	1.00				
	Shrink-swell	0.50	Too clayey	0.50		
	Depth to saturated zone	0.19				
572C2:						
Loran---------------	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Low strength	1.00				
	Shrink-swell	0.50	Too clayey	0.50		
	Depth to saturated zone	0.19	Slope	0.12		
	Slope	0.12				
618C2:						
Senachwine----------	Very limited		Somewhat limited		Not limited	
	Low strength	1.00	Depth to dense layer	0.50		
	Frost action	0.50				
	Shrink-swell	0.50	Slope	0.12		
	Slope	0.12				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
618D2:						
Senachwine	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Slope	0.98	Slope	0.96
	Slope	0.98	Depth to dense layer	0.50		
	Shrink-swell	0.50				
	Frost action	0.50				
670A:						
Aholt	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Ponding	1.00	Too clayey	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Too clayey	0.50	Depth to saturated zone	1.00
	Low strength	1.00				
	Frost action	0.50				
671A, 671B:						
Biggsville	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.15		
	Low strength	1.00				
672A, 672B:						
Cresent	Somewhat limited		Very limited		Not limited	
	Frost action	0.50	Cutbanks cave	1.00		
672D3:						
Cresent	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.98	Cutbanks cave	1.00	Slope	0.96
	Frost action	0.50	Slope	0.98		
675A, 675B:						
Greenbush	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.15		
	Low strength	1.00				
	Shrink-swell	0.50				
675C2:						
Greenbush	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.15		
	Low strength	1.00				
	Shrink-swell	0.50	Slope	0.12		
	Slope	0.12				
684B:						
Broadwell	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
	Shrink-swell	0.50				
684C2:						
Broadwell	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00	Slope	0.12		
	Shrink-swell	0.50				
	Slope	0.12				
686A, 686B, 686B2:						
Parkway	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.15		
	Low strength	1.00				
	Shrink-swell	0.50				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
689B:						
Coloma	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Too sandy	0.50
					Droughty	0.49
689D:						
Coloma	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.68	Cutbanks cave	1.00	Droughty	0.58
			Slope	0.68	Too sandy	0.50
					Slope	0.37
705A:						
Buckhart	Very limited		Somewhat limited		Not limited	
	Frost action	1.00	Depth to saturated zone	0.99		
	Low strength	1.00				
	Shrink-swell	0.50				
741B:						
Oakville	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.40
741D:						
Oakville	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.68	Cutbanks cave	1.00	Droughty	0.40
			Slope	0.68	Slope	0.37
741F:						
Oakville	Very limited		Very limited		Very limited	
	Slope	1.00	Cutbanks cave	1.00	Slope	1.00
			Slope	1.00	Droughty	0.62
764A, 764B:						
Coyne	Somewhat limited		Not limited		Not limited	
	Frost action	0.50				
767A:						
Prophetstown	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
777A:						
Adrian	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Content of organic matter	1.00		
800C:						
Psamments	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.40	Cutbanks cave	1.00	Droughty	0.69
			Slope	0.40	Too sandy	0.50
					Slope	0.09

Table 14b.--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
802B:						
Orthents	Very limited		Not limited		Not limited	
	Low strength	1.00				
	Shrink-swell	0.50				
	Frost action	0.50				
871B:						
Lenzburg	Somewhat limited		Not limited		Not limited	
	Shrink-swell	0.50				
	Frost action	0.50				
	Low strength	0.05				
871G:						
Lenzburg	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	0.90				
	Shrink-swell	0.50				
	Frost action	0.50				
911G:						
Timula	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	1.00				
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	1.00				
	Shrink-swell	0.50				
	Frost action	0.50				
913D, 913D3:						
Marseilles	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00	Depth to soft bedrock	0.42	Depth to bedrock	0.42
	Slope	0.98				
	Shrink-swell	0.50				
Hickory	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Slope	0.98	Slope	0.96
	Slope	0.98				
	Shrink-swell	0.50				
	Frost action	0.50				
913F, 913F2:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	1.00	Depth to soft bedrock	0.42	Depth to bedrock	0.42
	Low strength	1.00				
	Shrink-swell	0.50				
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	1.00				
	Shrink-swell	0.50				
	Frost action	0.50				
917B:						
Oakville	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Droughty	0.29

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
917B:						
Tell	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00				
	Shrink-swell	0.50				
917C2:						
Oakville	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.12	Cutbanks cave	1.00	Droughty	0.34
			Slope	0.12		
Tell	Very limited		Very limited		Not limited	
	Frost action	1.00	Cutbanks cave	1.00		
	Low strength	1.00	Slope	0.12		
	Shrink-swell	0.50				
	Slope	0.12				
917D:						
Oakville	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.68	Cutbanks cave	1.00	Droughty	0.40
			Slope	0.68	Slope	0.37
Tell	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Cutbanks cave	1.00	Slope	0.37
	Low strength	1.00	Slope	0.68		
	Slope	0.68				
	Shrink-swell	0.50				
917D2:						
Oakville	Somewhat limited		Very limited		Somewhat limited	
	Slope	0.98	Cutbanks cave	1.00	Slope	0.96
			Slope	0.98	Droughty	0.40
Tell	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Cutbanks cave	1.00	Slope	0.96
	Low strength	1.00	Slope	0.98		
	Slope	0.98				
	Shrink-swell	0.50				
918D3:						
Marseilles	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00	Depth to soft bedrock	0.42	Depth to bedrock	0.42
	Slope	0.98				
	Shrink-swell	0.50				
Atlas	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Slope	0.96
	Low strength	1.00			Depth to saturated zone	0.94
	Shrink-swell	1.00	Slope	0.98		
	Slope	0.98	Too clayey	0.50		
	Depth to saturated zone	0.94				
943D3:						
Seaton	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00				
	Slope	0.98				
Timula	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Slope	0.98				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
943G:						
Seaton	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	1.00				
	Low strength	1.00				
Timula	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Frost action	1.00				
946D2, 946D3:						
Hickory	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Slope	0.98	Slope	0.96
	Slope	0.98				
	Shrink-swell	0.50				
	Frost action	0.50				
Atlas	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Slope	0.96
	Low strength	1.00	Slope	0.98	Depth to saturated zone	0.94
	Shrink-swell	1.00	Too clayey	0.50		
	Slope	0.98				
	Depth to saturated zone	0.94				
957D3:						
Elco	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	0.99	Slope	0.96
	Low strength	1.00	Slope	0.98		
	Slope	0.98				
	Shrink-swell	0.50				
Atlas	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Slope	0.96
	Slope	1.00	Slope	0.98	Depth to saturated zone	0.94
	Low strength	1.00	Too clayey	0.50		
	Shrink-swell	1.00				
	Depth to saturated zone	0.94				
962D3:						
Sylvan	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Low strength	1.00				
	Slope	0.98				
	Shrink-swell	0.50				
Bold	Very limited		Somewhat limited		Somewhat limited	
	Frost action	1.00	Slope	0.98	Slope	0.96
	Slope	0.98				
	Low strength	0.50				
3070A:						
Beaucoup	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Frost action	1.00	Flooding	0.80	Depth to saturated zone	1.00
	Flooding	1.00				
	Low strength	1.00				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
3074A:						
Radford	Very limited		Very limited		Very limited	
	Frost action	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Low strength	1.00	Flooding	0.80	Depth to saturated zone	0.75
	Flooding	1.00				
	Depth to saturated zone	0.75				
3107+, 3107A:						
Sawmill	Very limited		Very limited		Very limited	
	Frost action	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Low strength	1.00	Flooding	0.80	Depth to saturated zone	1.00
	Flooding	1.00				
	Depth to saturated zone	1.00				
	Shrink-swell	0.50				
3284A:						
Tice	Very limited		Very limited		Very limited	
	Frost action	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Low strength	1.00	Flooding	0.80	Depth to saturated zone	0.94
	Flooding	1.00				
	Depth to saturated zone	0.94				
	Shrink-swell	0.50				
3302A:						
Ambraw	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Frost action	1.00	Flooding	0.80	Depth to saturated zone	1.00
	Flooding	1.00				
	Low strength	1.00				
3400A:						
Calco	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Frost action	1.00	Flooding	0.80	Depth to saturated zone	1.00
	Flooding	1.00				
	Low strength	1.00				
3415A:						
Orion	Very limited		Very limited		Very limited	
	Frost action	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Low strength	1.00	Cutbanks cave	1.00	Depth to saturated zone	0.75
	Flooding	1.00	Flooding	0.80		
	Depth to saturated zone	0.75				
7100A:						
Palms	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Flooding	0.40				

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
7302A:						
Ambraw	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	0.50				
7404A:						
Titus	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00				
	Low strength	1.00				
	Shrink-swell	1.00				
7654A:						
Moline	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Too clayey	0.50	Too clayey	1.00
	Frost action	1.00				
	Low strength	1.00				
7682A:						
Medway	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.43
	Low strength	1.00				
	Depth to saturated zone	0.43				
	Flooding	0.40				
7777A:						
Adrian	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Content of organic matter	1.00		
	Flooding	0.40				
8107+:						
Sawmill	Very limited		Very limited		Very limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Flooding	0.60	Flooding	0.60
	Flooding	1.00				
	Depth to saturated zone	1.00				
	Shrink-swell	0.50				
8166A:						
Cohoctah	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
	Flooding	1.00	Flooding	0.60		

Table 14b.--Building Site Development--Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
8284A:						
Tice	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
	Flooding	1.00	Flooding	0.60	Flooding	0.60
	Low strength	1.00				
	Depth to saturated zone	0.94				
	Shrink-swell	0.50				
8302A:						
Ambraw	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Flooding	0.60	Flooding	0.60
	Flooding	1.00				
	Low strength	1.00				
8400A:						
Calco	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Flooding	0.60	Flooding	0.60
	Flooding	1.00				
	Low strength	1.00				
8415A:						
Orion	Very limited		Very limited		Somewhat limited	
	Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
	Flooding	1.00	Flooding	0.60	Flooding	0.60
	Depth to saturated zone	0.75				
8492A:						
Normandy	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
	Flooding	1.00	Flooding	0.60		
	Low strength	1.00				
	Shrink-swell	0.50				
8499A:						
Fella	Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Frost action	1.00	Flooding	0.60	Flooding	0.60
	Flooding	1.00				
	Low strength	1.00				
8638A:						
Muskego	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of organic matter	1.00
	Subsidence	1.00	Content of organic matter	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.60	Carbonate content	1.00
	Frost action	1.00			Flooding	0.60
	Shrink-swell	0.50				

Table 15.--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 potential limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons		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	Rating class and limiting features	Value	Rating class and limiting features	Value
8D2, 8D3:										
Hickory	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
8F, 8F2:										
Hickory	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
17A:										
Keomah	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	0.53					Too clayey	0.50
19D2, 19D3:										
Sylvan	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53						
19F:										
Sylvan	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53						
22D2, 22D3:										
Westville	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
43A:										
Ipava	Very limited		Very limited		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 saturated zone	1.00	Hard to compact	1.00
	Restricted permeability	1.00			Too clayey	0.50			Depth to saturated zone	0.86
									Too clayey	0.50
45A:										
Denny	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00			Too clayey	0.50			Too clayey	0.50
49A:										
Watseka	Very limited		Very limited		Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
	Poor filtering capacity	1.00	Depth to saturated zone	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00
					Too sandy	1.00			Depth to saturated zone	1.00
51A:										
Muscatune	Very limited		Very limited		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 saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
67A:										
Harpster	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53						
68A:										
Sable	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons		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	Rating class and limiting features	Value	Rating class and limiting features	Value
69A:										
Milford	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00			Too clayey	0.50			Too clayey	0.50
81A:										
Littleton	Very limited		Very limited		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 saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53						
86B:										
Osco	Somewhat limited		Somewhat limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	0.53	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Depth to saturated zone	0.40	Slope	0.18	Too clayey	0.50				
86C2:										
Osco	Somewhat limited		Very limited		Very limited		Very limited		Not limited	
	Restricted permeability	0.46	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Depth to saturated zone	0.40	Seepage	0.53						
87A:										
Dickinson	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
					Too sandy	1.00			Seepage	1.00
87B, 87B2:										
Dickinson	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	0.18	Too sandy	1.00			Seepage	1.00
87C2:										
Dickinson	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	1.00	Too sandy	1.00			Seepage	1.00

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
88A:										
Sparta	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
					Too sandy	1.00			Seepage	1.00
88B:										
Sparta	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00
			Slope	0.32	Too sandy	1.00			Too sandy	0.50
88C:										
Sparta	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	1.00	Too sandy	1.00	Slope	0.04	Seepage	1.00
	Slope	0.04			Slope	0.04			Slope	0.04
100A:										
Palms	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Content of organic matter	1.00			Seepage	1.00		
	Restricted permeability	0.72	Seepage	0.28						
102A:										
La Hogue	Very limited		Very limited		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 saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.72	Seepage	1.00			Seepage	1.00	Seepage	0.21
119D2, 119D3:										
Elco	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	0.96
	Restricted permeability	1.00	Depth to saturated zone	1.00	Slope	0.96	Slope	0.96	Too clayey	0.50
	Slope	0.96	Seepage	0.53	Too clayey	0.50			Depth to saturated zone	0.25

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons		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	Rating class and limiting features	Value	Rating class and limiting features	Value
125A:										
Selma	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Seepage	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Depth to saturated zone	1.00	Seepage	1.00				
148B:										
Proctor	Somewhat limited		Very limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	1.00	Seepage	1.00	Seepage	1.00	Seepage	0.22
			Slope	0.18						
148C2:										
Proctor	Somewhat limited		Very limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Slope	1.00	Seepage	1.00	Seepage	1.00	Too clayey	0.50
			Seepage	1.00	Too clayey	0.50				
149A:										
Brenton	Very limited		Very limited		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 saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
152A:										
Drummer	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
153A:										
Pella	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
172A:										
Hoopeston-------	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
	Poor filtering capacity	1.00	Depth to saturated zone	1.00	Seepage	1.00	Seepage	1.00	Seepage	0.52
198A:										
Elburn----------	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
	Restricted permeability	0.46	Seepage	1.00	Seepage	1.00			Too clayey	0.50
					Too clayey	0.50				
199A:										
Plano-----------	Somewhat limited		Very limited		Very limited		Not limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	1.00	Seepage	1.00			Too clayey	0.50
					Too clayey	0.50				
199B:										
Plano-----------	Somewhat limited		Very limited		Very limited		Not limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	1.00	Seepage	1.00			Too clayey	0.50
			Slope	0.18	Too clayey	0.50				
199C2:										
Plano-----------	Somewhat limited		Very limited		Very limited		Not limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	1.00	Seepage	1.00			Too clayey	0.50
			Slope	1.00	Too clayey	0.50				
200A:										
Orio------------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Seepage	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Poor filtering capacity	1.00	Depth to saturated zone	1.00	Too sandy	1.00			Too sandy	1.00
	Restricted permeability	1.00			Seepage	1.00			Seepage	1.00

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons		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	Rating class and limiting features	Value	Rating class and limiting features	Value
201A:										
Gilford	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Seepage	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Poor filtering capacity	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
206A:										
Thorp	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Seepage	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00			Too clayey	0.50
					Too clayey	0.50				
212B:										
Thebes	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Restricted permeability	0.46	Slope	0.18					Too clayey	0.50
212D3:										
Thebes	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Poor filtering capacity	1.00	Slope	1.00	Seepage	1.00	Seepage	1.00	Slope	0.96
	Slope	0.96	Seepage	1.00	Slope	0.96	Slope	0.96	Seepage	0.52
	Restricted permeability	0.46								
219A:										
Millbrook	Very limited		Very limited		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 saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
250C2:										
Velma	Somewhat limited		Very limited		Somewhat limited		Not limited		Somewhat limited	
	Restricted permeability	0.46	Slope	1.00	Too clayey	0.50			Too clayey	0.50
			Seepage	0.53						

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
250D2:										
Velma----------	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
250E2:										
Velma----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
257A:										
Clarksdale------	Very limited		Very limited		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 saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Seepage	0.53	Too clayey	0.50			Hard to compact	1.00
									Too clayey	0.50
259B:										
Assumption------	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Restricted permeability	1.00	Seepage	0.53	Too clayey	0.50			Depth to saturated zone	0.25
			Slope	0.18						
259C2:										
Assumption------	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Restricted permeability	1.00	Slope	1.00	Too clayey	0.50			Depth to saturated zone	0.25
			Seepage	0.53						
259D2:										
Assumption------	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	0.96
	Restricted permeability	1.00	Depth to saturated zone	1.00	Slope	0.96	Slope	0.96	Too clayey	0.50
	Slope	0.96	Seepage	0.53	Too clayey	0.50			Depth to saturated zone	0.25

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons		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	Rating class and limiting features	Value	Rating class and limiting features	Value
261A:										
Niota	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	0.28						
262A:										
Denrock	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	0.01	Seepage	1.00			Hard to compact	1.00
	Poor filtering capacity	1.00			Too clayey	1.00			Depth to saturated zone	1.00
274B:										
Seaton	Somewhat limited		Somewhat limited		Not limited		Not limited		Not limited	
	Restricted permeability	0.46	Seepage	0.53						
			Slope	0.18						
274C2:										
Seaton	Somewhat limited		Very limited		Not limited		Not limited		Not limited	
	Restricted permeability	0.46	Slope	1.00						
			Seepage	0.53						
274D2:										
Seaton	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53						
275A:										
Joy	Very limited		Very limited		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 saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53						
277C2:										
Port Byron	Somewhat limited		Very limited		Not limited		Not limited		Not limited	
	Restricted permeability	0.46	Slope	1.00						
			Seepage	0.53						

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
279A:										
Rozetta	Somewhat limited		Somewhat limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	0.53	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Depth to saturated zone	0.40			Too clayey	0.50				
279B:										
Rozetta	Somewhat limited		Somewhat limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	0.53	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
			Slope	0.18						
	Depth to saturated zone	0.40			Too clayey	0.50				
280B:										
Fayette	Somewhat limited		Somewhat limited		Somewhat limited		Not limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
			Slope	0.18						
280C2:										
Fayette	Somewhat limited		Very limited		Somewhat limited		Not limited		Somewhat limited	
	Restricted permeability	0.46	Slope	1.00	Too clayey	0.50			Too clayey	0.50
			Seepage	0.53						
280D2, 280D3:										
Fayette	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
430A:										
Raddle	Somewhat limited		Somewhat limited		Not limited		Not limited		Not limited	
	Restricted permeability	0.46	Seepage	0.53						
430B:										
Raddle	Somewhat limited		Somewhat limited		Not limited		Not limited		Not limited	
	Restricted permeability	0.46	Seepage	0.53						
			Slope	0.18						

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
457A:										
Booker	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00			Too clayey	1.00			Too clayey	1.00
									Hard to compact	1.00
465A:										
Montgomery	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00			Too clayey	0.50			Hard to compact	1.00
									Too clayey	0.50
485A:										
Richwood	Very limited		Very limited		Very limited		Not limited		Not limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00				
	Restricted permeability	0.46								
485B:										
Richwood	Very limited		Very limited		Very limited		Not limited		Not limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00				
	Restricted permeability	0.46	Slope	0.18						
487A:										
Joyce	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
	Poor filtering capacity	1.00	Depth to saturated zone	1.00	Seepage	1.00				
	Restricted permeability	0.46								

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
488A:										
Hooppole--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Poor filtering capacity	1.00	Depth to saturated zone	1.00	Seepage	1.00				
	Restricted permeability	0.46								
546B:										
Keltner---------	Very limited		Somewhat limited		Very limited		Somewhat limited		Somewhat limited	
	Restricted permeability	1.00	Depth to saturated zone	0.81	Depth to bedrock	1.00	Depth to bedrock	0.42	Too clayey	0.50
	Depth to saturated zone	1.00	Seepage	0.53	Depth to saturated zone	0.86	Depth to saturated zone	0.19	Depth to saturated zone	0.47
	Depth to bedrock	0.78	Depth to soft bedrock	0.42	Too clayey	0.50			Depth to bedrock	0.42
			Slope	0.18						
546C2:										
Keltner---------	Very limited		Very limited		Very limited		Somewhat limited		Somewhat limited	
	Restricted permeability	1.00	Slope	1.00	Depth to bedrock	1.00	Depth to bedrock	0.42	Too clayey	0.50
	Depth to saturated zone	1.00	Depth to saturated zone	0.81	Depth to saturated zone	0.86	Depth to saturated zone	0.19	Depth to saturated zone	0.47
	Depth to bedrock	0.78	Seepage	0.53	Too clayey	0.50			Depth to bedrock	0.42
			Depth to soft bedrock	0.42						
549D2:										
Marseilles------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00	Slope	0.96	Slope	0.96	Hard to compact	1.00
	Slope	0.96			Too clayey	0.50			Slope	0.96
									Too clayey	0.50
549F, 549F2:										
Marseilles------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00	Slope	1.00	Slope	1.00	Depth to bedrock	1.00
	Slope	1.00	Slope	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
					Too clayey	0.50			Hard to compact	1.00
									Too clayey	0.50

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
564A:										
Waukegan--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
					Too sandy	1.00			Seepage	1.00
	Restricted permeability	0.46								
564B:										
Waukegan--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	0.18	Too sandy	1.00			Seepage	1.00
	Restricted permeability	0.46								
546B2:										
Waukegan--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	0.18	Too sandy	1.00			Seepage	1.00
565A:										
Tell------------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00
					Too sandy	1.00			Too sandy	0.50
	Restricted permeability	0.46								
565B:										
Tell------------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00
			Slope	0.18	Too sandy	1.00			Too sandy	0.50
	Restricted permeability	0.46								
565C2:										
Tell------------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00
			Slope	1.00	Too sandy	1.00			Too sandy	0.50
	Restricted permeability	0.46								

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
567D2:										
Elkhart---------	Somewhat limited		Very limited		Very limited		Very limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53	Slope	0.96	Slope	0.96		
	Depth to saturated zone	0.43								
572A:										
Loran-----------	Very limited		Somewhat limited		Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53	Depth to bedrock	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Depth to bedrock	0.78	Depth to soft bedrock	0.42	Depth to saturated zone	1.00	Depth to bedrock	0.42	Too clayey	0.50
	Restricted permeability	0.46	Depth to saturated zone	0.25	Too clayey	0.50			Depth to bedrock	0.42
572B:										
Loran-----------	Very limited		Somewhat limited		Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Seepage	0.53	Depth to bedrock	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Depth to bedrock	0.78	Depth to soft bedrock	0.42	Depth to saturated zone	1.00	Depth to bedrock	0.42	Too clayey	0.50
	Restricted permeability	0.46	Depth to saturated zone	0.25	Too clayey	0.50			Depth to bedrock	0.42
			Slope	0.18						
572C2:										
Loran-----------	Very limited		Very limited		Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Slope	1.00	Depth to bedrock	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86
	Depth to bedrock	0.78	Seepage	0.53	Depth to saturated zone	1.00	Depth to bedrock	0.42	Too clayey	0.50
	Restricted permeability	0.46	Depth to soft bedrock	0.42	Too clayey	0.50			Depth to bedrock	0.42
			bedrock	0.42						
			Depth to saturated zone	0.25						
618C2:										
Senachwine------	Very limited		Very limited		Not limited		Not limited		Not limited	
	Restricted permeability	1.00	Slope	1.00						
			Seepage	0.53						
618D2:										
Senachwine------	Very limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Restricted permeability	1.00	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Slope	0.96	Seepage	0.53						

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
670A:										
Aholt	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00			Too clayey	1.00			Too clayey	1.00
									Hard to compact	1.00
671A:										
Biggsville	Somewhat limited		Somewhat limited		Very limited		Very limited		Not limited	
	Restricted permeability	0.46	Seepage	0.53	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Depth to saturated zone	0.40								
671B:										
Biggsville	Somewhat limited		Somewhat limited		Very limited		Very limited		Not limited	
	Restricted permeability	0.46	Seepage	0.53	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
			Slope	0.18						
	Depth to saturated zone	0.40								
672A:										
Cresent	Very limited		Very limited		Very limited		Not limited		Somewhat limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00			Too clayey	0.50
					Too clayey	0.50				
	Restricted permeability	0.46								
672B:										
Cresent	Very limited		Very limited		Very limited		Not limited		Somewhat limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00			Too clayey	0.50
			Slope	0.18	Too clayey	0.50				
	Restricted permeability	0.46								
672D3:										
Cresent	Very limited		Very limited		Very limited		Somewhat limited		Somewhat limited	
	Poor filtering capacity	1.00	Slope	1.00	Seepage	1.00	Slope	0.96	Slope	0.96
			Seepage	1.00	Slope	0.96				
	Slope	0.96								
	Restricted permeability	0.46								

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
675A:										
Greenbush-------	Somewhat limited		Somewhat limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	0.53	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Depth to saturated zone	0.40			Too clayey	0.50				
675B:										
Greenbush-------	Somewhat limited		Somewhat limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	0.53	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
			Slope	0.18						
	Depth to saturated zone	0.40			Too clayey	0.50				
675C2:										
Greenbush-------	Somewhat limited		Very limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
			Seepage	0.53						
	Depth to saturated zone	0.40			Too clayey	0.50				
684B:										
Broadwell-------	Very limited		Very limited		Very limited		Not limited		Somewhat limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00			Too clayey	0.50
			Slope	0.18	Too clayey	0.50				
	Restricted permeability	0.46								
684C2:										
Broadwell-------	Very limited		Very limited		Very limited		Not limited		Somewhat limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00			Too clayey	0.50
			Slope	1.00	Too clayey	0.50				
	Restricted permeability	0.46								
686A:										
Parkway---------	Somewhat limited		Somewhat limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	0.53	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Depth to saturated zone	0.40			Too clayey	0.50				

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
686B, 686B2:										
Parkway---------	Somewhat limited		Somewhat limited		Very limited		Very limited		Somewhat limited	
	Restricted permeability	0.46	Seepage	0.53	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Depth to saturated zone	0.40	Slope	0.18	Too clayey	0.50				
689B:										
Coloma----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	0.32	Too sandy	1.00			Seepage	1.00
689D:										
Coloma----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Slope	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Seepage	1.00	Too sandy	1.00	Slope	0.37	Seepage	1.00
	Slope	0.37			Slope	0.37			Slope	0.37
705A:										
Buckhart--------	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
									Depth to saturated zone	0.25
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50				
741B:										
Oakville--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	0.32	Too sandy	1.00			Seepage	1.00
741D:										
Oakville--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Slope	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Seepage	1.00	Too sandy	1.00	Slope	0.37	Seepage	1.00
	Slope	0.37			Slope	0.37			Slope	0.37
741F:										
Oakville--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
			Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Slope	1.00			Too sandy	1.00			Seepage	1.00

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
764A:										
Coyne	Very limited		Somewhat limited		Not limited		Very limited		Not limited	
	Restricted permeability	1.00	Seepage	0.53			Seepage	1.00		
764B:										
Coyne	Very limited		Somewhat limited		Not limited		Not limited		Not limited	
	Restricted permeability	1.00	Seepage	0.53						
			Slope	0.18						
767A:										
Prophetstown	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.46	Seepage	0.53						
777A:										
Adrian	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Subsidence	1.00	Seepage	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Poor filtering capacity	1.00	Content of organic matter	1.00	Too sandy	1.00			Seepage	1.00
800C:										
Psamments	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Slope	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Slope	0.09			Too sandy	1.00	Slope	0.09	Seepage	1.00
					Slope	0.09			Slope	0.09
802B:										
Orthents	Very limited		Somewhat limited		Not limited		Not limited		Not limited	
	Restricted permeability	1.00	Slope	0.32						
871B:										
Lenzburg	Very limited		Somewhat limited		Not limited		Not limited		Not limited	
	Restricted permeability	1.00	Slope	0.32						

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
871G:										
Lenzburg	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	1.00			Too clayey	0.50			Too clayey	0.50
									Gravel content	0.02
911G:										
Timula	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53						
Hickory	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
913D, 913D3:										
Marseilles	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
					Slope	0.96	Slope	0.96	Hard to compact	1.00
	Depth to bedrock	1.00	Slope	1.00	Too clayey	0.50			Slope	0.96
	Slope	0.96							Too clayey	0.50
Hickory	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
913F:										
Marseilles	Very limited		Very limited		Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00	Slope	1.00	Slope	1.00	Depth to bedrock	1.00
	Slope	1.00			Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
			Slope	1.00	Too clayey	0.50			Too clayey	0.50
			Seepage	0.53						
Hickory	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
913F2:										
Marseilles------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Depth to soft bedrock	1.00	Slope	1.00	Slope	1.00	Depth to bedrock	1.00
					Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Depth to bedrock	1.00	Slope	1.00	Too clayey	0.50			Too clayey	0.50
	Slope	1.00								
Hickory---------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
917B:										
Oakville--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	0.32	Too sandy	1.00			Seepage	1.00
Tell------------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	0.32	Too sandy	1.00			Seepage	1.00
	Restricted permeability	0.46								
917C2:										
Oakville--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Slope	1.00	Too sandy	1.00			Seepage	1.00
Tell------------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00	Seepage	1.00
			Slope	1.00	Too sandy	1.00			Too sandy	0.50
	Restricted permeability	0.46								
917D:										
Oakville--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Slope	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
			Seepage	1.00	Too sandy	1.00	Slope	0.37	Seepage	1.00
	Slope	0.37			Slope	0.37			Slope	0.37

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
917D:										
Tell	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Slope	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Restricted permeability	0.46	Seepage	1.00	Too sandy	1.00	Slope	0.37	Seepage	1.00
	Slope	0.37			Slope	0.37			Slope	0.37
917D2:										
Oakville	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Slope	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Slope	0.96	Seepage	1.00	Too sandy	1.00	Slope	0.96	Seepage	1.00
					Slope	0.96			Slope	0.96
Tell	Very limited		Very limited		Very limited		Very limited		Very limited	
	Poor filtering capacity	1.00	Slope	1.00	Seepage	1.00	Seepage	1.00	Too sandy	1.00
	Slope	0.96	Seepage	1.00	Too sandy	1.00	Slope	0.96	Seepage	1.00
	Restricted permeability	0.46			Slope	0.96			Slope	0.96
918D3:										
Marseilles	Very limited		Very limited		Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
					Too clayey	0.50			Too clayey	0.50
Atlas	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	1.00
	Depth to saturated zone	1.00			Too clayey	1.00	Slope	0.96	Hard to compact	1.00
	Slope	0.96			Slope	0.96			Depth to saturated zone	1.00
									Slope	0.96
943D3:										
Seaton	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53						
Timula	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53						

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
943G:										
Seaton	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53						
Timula	Very limited		Very limited		Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00	Slope	1.00
	Restricted permeability	0.46	Seepage	0.53						
946D2, 946D3:										
Hickory	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
Atlas	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	1.00
									Hard to compact	1.00
	Depth to saturated zone	1.00			Too clayey	1.00	Slope	0.96	Depth to saturated zone	1.00
	Slope	0.96			Slope	0.96			Slope	0.96
957D3:										
Elco	Very limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
			Depth to saturated zone	0.96	Depth to saturated zone	0.68	Depth to saturated zone	0.04	Too clayey	0.50
	Restricted permeability	1.00							Depth to saturated zone	0.25
			Seepage	0.53	Too clayey	0.50				
	Slope	0.96								
Atlas	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Slope	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	1.00
									Hard to compact	1.00
	Depth to saturated zone	1.00			Too clayey	1.00	Slope	0.96	Depth to saturated zone	1.00
	Slope	0.96			Slope	0.96			Slope	0.96
962D3:										
Sylvan	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53						

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
962D3:										
Bold	Somewhat limited		Very limited		Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.96	Slope	1.00	Slope	0.96	Slope	0.96	Slope	0.96
	Restricted permeability	0.46	Seepage	0.53						
3070A:										
Beaucoup	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Ponding	1.00	Flooding	1.00	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Restricted permeability	1.00			Too clayey	0.50				
3074A:										
Radford	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50				
3107+, 3107A:										
Sawmill	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50				
3284A:										
Tice	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Restricted permeability	0.46	Seepage	0.53						

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
3302A: Ambraw----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Ponding	1.00	Flooding	1.00	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Hard to compact	1.00
	Restricted permeability	1.00	Seepage	0.28	Too clayey	0.50			Too clayey	0.50
3400A: Calco-----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Ponding	1.00	Flooding	1.00	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Hard to compact	1.00
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
3415A: Orion-----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Restricted permeability	0.46	Seepage	0.53						
7100A: Palms-----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Content of organic matter	1.00	Too clayey	0.50	Seepage	1.00	Too clayey	0.50
	Restricted permeability	0.72	Flooding	0.40	Flooding	0.40	Flooding	0.40		
	Flooding	0.40	Seepage	0.28						
7302A: Ambraw----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Flooding	0.40	Too clayey	0.50	Flooding	0.40	Hard to compact	1.00
	Flooding	0.40	Seepage	0.28	Flooding	0.40			Too clayey	0.50

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Septic tank absorption fields: Value	Sewage lagoons: Rating class and limiting features	Sewage lagoons: Value	Trench sanitary landfill: Rating class and limiting features	Trench sanitary landfill: Value	Area sanitary landfill: Rating class and limiting features	Area sanitary landfill: Value	Daily cover for landfill: Rating class and limiting features	Daily cover for landfill: Value
7404A:										
Titus	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Flooding	0.40	Too clayey	0.50	Flooding	0.40	Hard to compact	1.00
	Flooding	0.40			Flooding	0.40			Too clayey	0.50
7654A:										
Moline	Very limited		Very limited		Very limited		Very limited		Very limited	
	Restricted permeability	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Flooding	0.40	Too clayey	1.00	Flooding	0.40	Too clayey	1.00
	Flooding	0.40			Flooding	0.40			Hard to compact	1.00
7682A:										
Medway	Very limited		Very limited		Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.95
	Restricted permeability	0.46	Seepage	1.00	Seepage	1.00	Seepage	1.00	Seepage	0.22
	Flooding	0.40	Flooding	0.40	Flooding	0.40	Flooding	0.40		
7777A:										
Adrian	Very limited		Very limited		Very limited		Very limited		Very limited	
	Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Seepage	1.00	Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Subsidence	1.00	Depth to saturated zone	1.00	Too sandy	1.00	Seepage	1.00	Too sandy	1.00
	Poor filtering capacity	1.00	Content of organic matter	1.00	Seepage	1.00	Flooding	0.40	Seepage	1.00
	Flooding	0.40	Flooding	0.40	Flooding	0.40				
8107+:										
Sawmill	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Restricted permeability	0.46	Seepage	0.53	Too clayey	0.50				

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
8166A:										
Cohoctah--------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Ponding	1.00	Flooding	1.00	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	1.00	Depth to	1.00	Ponding	1.00	Depth to	1.00
	Depth to	1.00	Seepage	1.00	saturated zone		Depth to	1.00	saturated zone	
	saturated zone		Depth to	1.00	Ponding	1.00	saturated zone		Too sandy	1.00
			saturated zone		Seepage	1.00	Seepage	1.00	Seepage	0.52
					Too sandy	1.00				
8284A:										
Tice------------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00	Flooding	1.00	Depth to	1.00
	Depth to	1.00	Depth to	1.00	Depth to	1.00	Depth to	1.00	saturated zone	
	saturated zone		saturated zone		saturated zone		saturated zone		Hard to compact	1.00
	Restricted	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
	permeability									
8302A:										
Ambraw----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Ponding	1.00	Flooding	1.00	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	1.00	Depth to	1.00	Ponding	1.00	Depth to	1.00
	Depth to	1.00	Depth to	1.00	saturated zone		Depth to	1.00	saturated zone	
	saturated zone		saturated zone		Ponding	1.00	saturated zone		Too clayey	0.50
	Restricted	1.00	Seepage	0.28	Too clayey	0.50				
	permeability									
8400A:										
Calco-----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Ponding	1.00	Flooding	1.00	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	1.00	Depth to	1.00	Ponding	1.00	Depth to	1.00
	Depth to	1.00	Depth to	1.00	saturated zone		Depth to	1.00	saturated zone	
	saturated zone		saturated zone		Ponding	1.00	saturated zone		Hard to compact	1.00
	Restricted	0.46	Seepage	0.53	Too clayey	0.50			Too clayey	0.50
	permeability									
8415A:										
Orion-----------	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00	Flooding	1.00	Depth to	1.00
	Depth to	1.00	Depth to	1.00	Depth to	1.00	Depth to	1.00	saturated zone	
	saturated zone		saturated zone		saturated zone		saturated zone			
	Restricted	0.46	Seepage	0.53						
	permeability									

Table 15.--Sanitary Facilities--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons		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	Rating class and limiting features	Value	Rating class and limiting features	Value
8492A:										
Normandy	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Poor filtering capacity	1.00	Depth to saturated zone	1.00	Seepage	1.00				
	Restricted permeability	0.46								
8499A:										
Fella	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Ponding	1.00	Flooding	1.00	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Flooding	1.00	Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	1.00	Ponding	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Poor filtering capacity	1.00	Depth to saturated zone	1.00	Seepage	1.00				
	Restricted permeability	0.46			Too clayey	0.50				
8638A:										
Muskego	Very limited		Very limited		Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Restricted permeability	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Carbonate content	1.00
	Depth to saturated zone	1.00	Seepage	1.00	Content of organic matter	1.00			Hard to compact	1.00
	Subsidence	1.00	Content of organic matter	1.00						

Table 16.--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 1.00. For sand, the greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source. For the other materials, the smaller the value, the greater the limitation. See text for further explanation of the ratings in this table)

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
8D2, 8D3:								
Hickory------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Too acid	0.88	Shrink-swell	0.94	Too clayey	0.57	Thickest layer	0.00
	Too clayey	0.98			Rock fragments	0.88		
8F, 8F2:								
Hickory------	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.12	Slope	0.00	Slope	0.00	Bottom layer	0.00
			Low strength	0.00	Too clayey	0.57	Thickest layer	0.00
	Too acid	0.88	Shrink-swell	0.94	Rock fragments	0.88		
	Too clayey	0.98						
17A:								
Keomah-------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.02	Low strength	0.00	Depth to saturated zone	0.04	Bottom layer	0.00
			Depth to saturated zone	0.04			Thickest layer	0.00
	Too clayey	0.08			Too clayey	0.05		
	Water erosion	0.68	Shrink-swell	0.89				
	Too acid	0.74						
19D2:								
Sylvan-------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
					Too clayey	0.58	Thickest layer	0.00
	Water erosion	0.68						
	Carbonate content	0.97						
	Too clayey	0.99						
19D3:								
Sylvan-------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
					Too clayey	0.57	Thickest layer	0.00
	Carbonate content	0.97						
	Too clayey	0.98						
	Water erosion	0.99						
19F:								
Sylvan-------	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.24	Slope	0.00	Slope	0.00	Bottom layer	0.00
			Low strength	0.00	Too clayey	0.60	Thickest layer	0.00
	Water erosion	0.68						
	Carbonate content	0.97						
	Too clayey	0.98						
22D2, 22D3:								
Westville----	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.68	Low strength	0.00	Slope	0.04	Bottom layer	0.00
			Shrink-swell	0.87			Thickest layer	0.00
	Too acid	0.84						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
43A:								
Ipava	Fair		Poor		Fair		Poor	
	Water erosion	0.99	Low strength	0.00	Depth to saturated zone	0.53	Bottom layer	0.00
			Depth to saturated zone	0.53			Thickest layer	0.00
			Shrink-swell	0.59				
45A:								
Denny	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.00	Thickest layer	0.00
	Water erosion	0.90	Shrink-swell	0.74				
	Too acid	0.95						
49A:								
Watseka	Poor		Fair		Poor		Fair	
	Too sandy	0.00	Depth to saturated zone	0.12	Too sandy	0.00	Thickest layer	0.50
	Wind erosion	0.00			Depth to saturated zone	0.12	Bottom layer	0.99
	Low content of organic matter	0.12						
	Droughty	0.92						
	Too acid	0.97						
51A:								
Muscatune	Fair		Poor		Fair		Poor	
	Too acid	0.84	Low strength	0.00	Depth to saturated zone	0.14	Bottom layer	0.00
	Too clayey	0.92	Depth to saturated zone	0.14	Too clayey	0.67	Thickest layer	0.00
	Low content of organic matter	0.92	Shrink-swell	0.99				
	Water erosion	0.99						
67A:								
Harpster	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Carbonate content	0.68	Low strength	0.00	Carbonate content	0.68	Thickest layer	0.00
	Too clayey	0.82	Shrink-swell	0.87	Too clayey	0.82		
	Water erosion	0.90						
68A:								
Sable	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.68	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Too clayey	0.98	Low strength	0.00	Too clayey	0.98	Thickest layer	0.00
	Water erosion	0.99	Shrink-swell	0.87				
69A:								
Milford	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Water erosion	0.99	Low strength	0.00	Too clayey	0.00	Thickest layer	0.00
			Shrink-swell	0.87				
81A:								
Littleton	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Low strength	0.00	Depth to saturated zone	0.14	Bottom layer	0.00
	Water erosion	0.68	Depth to saturated zone	0.14			Thickest layer	0.00

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
86B:								
Osco---------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.64	Bottom layer	0.00
			Shrink-swell	0.87			Thickest layer	0.00
	Too acid	0.84						
	Too clayey	0.98						
	Water erosion	0.99						
86C2:								
Osco---------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Too clayey	0.64	Bottom layer	0.00
			Shrink-swell	0.87			Thickest layer	0.00
	Water erosion	0.68						
	Too acid	0.84						
	Too clayey	0.98						
87A:								
Dickinson----	Fair		Good		Good		Fair	
	Low content of organic matter	0.12					Thickest layer	0.03
							Bottom layer	0.90
	Too acid	0.84						
	Droughty	0.96						
87B:								
Dickinson----	Fair		Good		Good		Fair	
	Low content of organic matter	0.12					Thickest layer	0.06
							Bottom layer	0.90
	Too acid	0.84						
87B2:								
Dickinson----	Fair		Good		Good		Fair	
	Low content of organic matter	0.12					Thickest layer	0.06
							Bottom layer	0.90
	Droughty	0.70						
	Too acid	0.84						
87C2:								
Dickinson----	Fair		Good		Good		Fair	
	Low content of organic matter	0.12					Thickest layer	0.06
							Bottom layer	0.90
	Too acid	0.84						
	Droughty	0.93						
88A:								
Sparta-------	Poor		Good		Poor		Fair	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.67
	Wind erosion	0.00					Bottom layer	0.90
	Low content of organic matter	0.12						
	Too acid	0.74						
88B:								
Sparta-------	Poor		Good		Poor		Fair	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.50
	Wind erosion	0.00					Bottom layer	0.90
	Low content of organic matter	0.60						
	Too acid	0.97						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
88C:								
Sparta	Poor		Good		Poor		Fair	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.50
	Wind erosion	0.00			Slope	0.96	Bottom layer	0.90
	Low content of organic matter	0.68						
	Too acid	0.74						
100A:								
Palms	Poor		Poor		Poor		Poor	
	Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Low content of organic matter	0.50	Low strength	0.22	Content of organic matter	0.00	Thickest layer	0.00
102A:								
La Hogue	Fair		Fair		Fair		Fair	
	Low content of organic matter	0.50	Depth to saturated zone	0.14	Depth to saturated zone	0.14	Bottom layer	0.00
	Too acid	0.97					Thickest layer	0.11
119D2:								
Elco	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.02	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Water erosion	0.90	Shrink-swell	0.38	Too clayey	0.57	Thickest layer	0.00
	Too clayey	0.98	Depth to saturated zone	0.98	Depth to saturated zone	0.98		
119D3:								
Elco	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.02	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Too clayey	0.98	Shrink-swell	0.34	Too clayey	0.57	Thickest layer	0.00
	Water erosion	0.99	Depth to saturated zone	0.98	Depth to saturated zone	0.98		
125A:								
Selma	Fair		Poor		Poor		Fair	
	Low content of organic matter	0.98	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
			Low strength	0.78			Bottom layer	0.09
			Shrink-swell	0.99				
148B:								
Proctor	Fair		Good		Fair		Poor	
	Low content of organic matter	0.24			Too clayey	0.81	Bottom layer	0.00
	Too clayey	0.98					Thickest layer	0.00
	Water erosion	0.99						
148C2:								
Proctor	Fair		Poor		Fair		Poor	
	Too clayey	0.98	Low strength	0.00	Too clayey	0.81	Bottom layer	0.00
	Water erosion	0.99	Shrink-swell	0.96			Thickest layer	0.00
149A:								
Brenton	Fair		Poor		Fair		Fair	
	Low content of organic matter	0.50	Low strength	0.00	Depth to saturated zone	0.14	Thickest layer	0.00
			Depth to saturated zone	0.14			Bottom layer	0.03
			Shrink-swell	0.97				

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
152A:								
Drummer------	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Carbonate content	0.92	Low strength	0.00			Thickest layer	0.00
			Shrink-swell	0.99				
153A:								
Pella--------	Fair		Poor		Poor		Poor	
	Carbonate content	0.80	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Low content of organic matter	0.88	Low strength	0.00	Too clayey	0.98	Thickest layer	0.00
	Too clayey	0.98	Shrink-swell	0.95				
172A:								
Hoopeston----	Fair		Fair		Fair		Fair	
	Low content of organic matter	0.68	Depth to saturated zone	0.29	Depth to saturated zone	0.29	Thickest layer	0.06
	Too acid	0.97					Bottom layer	0.76
198A:								
Elburn-------	Fair		Poor		Fair		Fair	
	Water erosion	0.90	Low strength	0.00	Depth to saturated zone	0.53	Thickest layer	0.00
			Depth to saturated zone	0.53			Bottom layer	0.03
			Shrink-swell	0.99				
199A:								
Plano--------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.68	Low strength	0.00	Too clayey	0.67	Bottom layer	0.00
	Too acid	0.97	Shrink-swell	0.99			Thickest layer	0.00
	Too clayey	0.98						
	Water erosion	0.99						
199B, 199C2:								
Plano--------	Fair		Poor		Fair		Fair	
	Low content of organic matter	0.68	Low strength	0.00	Too clayey	0.67	Thickest layer	0.00
	Too acid	0.97	Shrink-swell	0.99			Bottom layer	0.10
	Too clayey	0.98						
	Water erosion	0.99						
200A:								
Orio---------	Fair		Poor		Poor		Fair	
	Low content of organic matter	0.02	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
	Too acid	0.97					Bottom layer	0.76
201A:								
Gilford------	Fair		Poor		Poor		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Thickest layer	0.10
							Bottom layer	0.90
206A:								
Thorp--------	Fair		Poor		Poor		Fair	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
	Water erosion	0.90	Low strength	0.00			Bottom layer	0.03
	Too acid	0.97	Shrink-swell	0.99				

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
212B:								
Thebes-------	Fair		Good		Fair		Fair	
	Low content of organic matter	0.12			Too clayey	0.65	Thickest layer	0.00
	Too acid	0.54			Too acid	0.98	Bottom layer	0.22
	Water erosion	0.90						
	Too clayey	0.99						
212D3:								
Thebes-------	Fair		Good		Fair		Fair	
	Low content of organic matter	0.12			Slope	0.04	Thickest layer	0.00
	Too acid	0.54			Too clayey	0.65	Bottom layer	0.22
	Water erosion	0.90			Too acid	0.98		
	Too clayey	0.99						
219A:								
Millbrook----	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.68	Low strength	0.00	Depth to saturated zone	0.04	Bottom layer	0.00
	Too acid	0.97	Depth to saturated zone	0.04	Too clayey	0.67	Thickest layer	0.00
	Too clayey	0.98	Shrink-swell	0.99				
	Water erosion	0.99						
250C2:								
Velma--------	Fair		Poor		Good		Poor	
	Low content of organic matter	0.88	Low strength	0.00			Bottom layer	0.00
			Shrink-swell	0.99			Thickest layer	0.00
250D2:								
Velma--------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.68	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Too acid	0.88	Shrink-swell	0.98			Thickest layer	0.00
	Carbonate content	0.97						
250E2:								
Velma--------	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.68	Low strength	0.00	Slope	0.00	Bottom layer	0.00
	Too acid	0.88	Slope	0.24			Thickest layer	0.00
	Carbonate content	0.97	Shrink-swell	0.98				
257A:								
Clarksdale---	Fair		Poor		Fair		Poor	
	Too clayey	0.02	Low strength	0.00	Too clayey	0.01	Bottom layer	0.00
	Low content of organic matter	0.12	Depth to saturated zone	0.04	Depth to saturated zone	0.04	Thickest layer	0.00
	Water erosion	0.90	Shrink-swell	0.50				
	Too acid	0.97						
259B:								
Assumption---	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Too clayey	0.64	Bottom layer	0.00
	Water erosion	0.90	Shrink-swell	0.63	Depth to saturated zone	0.98	Thickest layer	0.00
	Too acid	0.97	Depth to saturated zone	0.98				
	Too clayey	0.98						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
259C2:								
Assumption---	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Too clayey	0.64	Bottom layer	0.00
			Shrink-swell	0.31	Depth to saturated zone	0.98	Thickest layer	0.00
	Water erosion	0.90	Depth to saturated zone	0.98				
	Too acid	0.97						
	Too clayey	0.98						
259D2:								
Assumption---	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
			Shrink-swell	0.38	Too clayey	0.64	Thickest layer	0.00
	Too acid	0.97	Depth to saturated zone	0.98	Depth to saturated zone	0.98		
	Too clayey	0.98						
	Water erosion	0.99						
261A:								
Niota--------	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Low content of organic matter	0.12					Thickest layer	0.00
			Shrink-swell	0.81	Too clayey	0.00		
	Too acid	0.20			Too acid	0.76		
	Water erosion	0.90						
262A:								
Denrock------	Poor		Poor		Poor		Good	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00	Thickest layer	0.00
	Too acid	0.74	Depth to saturated zone	0.14	Depth to saturated zone	0.14	Bottom layer	1.00
	Water erosion	0.99						
			Shrink-swell	0.99				
274B, 274C2:							Poor	
Seaton-------	Fair		Poor		Good		Bottom layer	0.00
	Low content of organic matter	0.88	Low strength	0.00			Thickest layer	0.00
	Too acid	0.88						
	Water erosion	0.90						
	Carbonate content	0.97						
274D2:								
Seaton-------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.88	Low strength	0.00	Slope	0.04	Bottom layer	0.00
							Thickest layer	0.00
	Too acid	0.88						
	Carbonate content	0.97						
	Water erosion	0.99						
275A:								
Joy----------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.60	Low strength	0.00	Depth to saturated zone	0.14	Bottom layer	0.00
			Depth to saturated zone	0.14			Thickest layer	0.00
	Water erosion	0.90						
	Too acid	0.97						
277C2:								
Port Byron---	Fair		Poor		Good		Poor	
	Low content of organic matter	0.24	Low strength	0.00			Bottom layer	0.00
							Thickest layer	0.00
	Water erosion	0.90						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
279A:								
Rozetta------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.24	Low strength	0.00	Too clayey	0.60	Bottom layer	0.00
			Shrink-swell	0.96			Thickest layer	0.00
	Too acid	0.68						
	Water erosion	0.90						
	Too clayey	0.98						
279B:								
Rozetta------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Too clayey	0.57	Bottom layer	0.00
			Shrink-swell	0.92			Thickest layer	0.00
	Water erosion	0.68						
	Too acid	0.68						
	Too clayey	0.98						
280B:								
Fayette------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.64	Bottom layer	0.00
			Shrink-swell	0.87			Thickest layer	0.00
	Water erosion	0.68						
	Too acid	0.68						
	Too clayey	0.98						
280C2:								
Fayette------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Too clayey	0.57	Bottom layer	0.00
			Shrink-swell	0.87			Thickest layer	0.00
	Too acid	0.68						
	Water erosion	0.90						
	Too clayey	0.98						
280D2:								
Fayette------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
			Shrink-swell	0.87	Too clayey	0.57	Thickest layer	0.00
	Too acid	0.54						
	Water erosion	0.90						
	Too clayey	0.98						
280D3:								
Fayette------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
			Shrink-swell	0.87	Too clayey	0.57	Thickest layer	0.00
	Water erosion	0.68						
	Too acid	0.68						
	Too clayey	0.98						
430A:								
Raddle-------	Fair		Fair		Good		Poor	
	Water erosion	0.68	Low strength	0.22			Bottom layer	0.00
							Thickest layer	0.00
430B:								
Raddle-------	Fair		Fair		Good			
	Water erosion	0.90	Low strength	0.22				
457A:								
Booker-------	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Too clayey	0.00	Bottom layer	0.00
	Low content of organic matter	0.50			Depth to saturated zone	0.00	Thickest layer	0.00
			Shrink-swell	0.00				
			Low strength	0.00				

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
465A:								
Montgomery---	Fair		Poor		Poor		Poor	
	Too clayey	0.08	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.05	Thickest layer	0.00
	Carbonate content	0.92	Shrink-swell	0.17				
	Water erosion	0.99						
485A, 485B:								
Richwood-----	Fair		Poor		Good		Good	
	Low content of organic matter	0.88	Low strength	0.00			Thickest layer	0.00
	Water erosion	0.90	Shrink-swell	0.98			Bottom layer	1.00
487A:								
Joyce--------	Fair		Poor		Fair		Fair	
	Low content of organic matter	0.50	Low strength	0.00	Depth to saturated zone	0.29	Thickest layer	0.00
	Too acid	0.84	Depth to saturated zone	0.29			Bottom layer	0.22
	Water erosion	0.90						
488A:								
Hooppole-----	Good		Poor		Poor		Fair	
			Depth to saturated zone	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
			Low strength	0.00			Bottom layer	0.90
			Shrink-swell	0.98				
546B:								
Keltner------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.64	Bottom layer	0.00
	Water erosion	0.90	Depth to bedrock	0.58	Depth to saturated zone	0.89	Thickest layer	0.00
	Too clayey	0.98	Depth to saturated zone	0.89				
546C2:								
Keltner------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.64	Bottom layer	0.00
	Water erosion	0.90	Depth to bedrock	0.58	Depth to saturated zone	0.89	Thickest layer	0.00
	Too clayey	0.98	Depth to saturated zone	0.89				
			Shrink-swell	0.98				
549D2:								
Marseilles---	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Depth to bedrock	0.00	Slope	0.04	Bottom layer	0.00
	Too acid	0.32	Low strength	0.00	Too clayey	0.39	Thickest layer	0.00
	Droughty	0.50	Shrink-swell	0.96	Depth to bedrock	0.58		
	Depth to bedrock	0.58			Too acid	0.88		
	Too clayey	0.68						
	Water erosion	0.99						
549F:								
Marseilles---	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.12	Depth to bedrock	0.00	Slope	0.00	Bottom layer	0.00
	Too acid	0.32	Low strength	0.00	Too clayey	0.39	Thickest layer	0.00
	Depth to bedrock	0.58	Slope	0.00	Depth to bedrock	0.58		
	Too clayey	0.68	Shrink-swell	0.87	Too acid	0.88		
	Droughty	0.83						
	Water erosion	0.99						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
549F2:								
Marseilles---	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.50	Depth to bedrock	0.00	Slope	0.00	Bottom layer	0.00
	Depth to bedrock	0.58	Low strength	0.00	Too clayey	0.44	Thickest layer	0.00
	Too clayey	0.68	Slope	0.00	Depth to bedrock	0.58		
	Too acid	0.68	Shrink-swell	0.92				
	Droughty	0.94						
	Water erosion	0.99						
564A, 564B:								
Waukegan-----	Fair		Good		Good		Good	
	Low content of organic matter	0.02					Thickest layer	0.00
	Water erosion	0.90					Bottom layer	1.00
	Too acid	0.97						
564B2:								
Waukegan-----	Poor		Good		Poor		Good	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.00
	Low content of organic matter	0.12			Rock fragments	0.12	Bottom layer	1.00
	Water erosion	0.90						
	Too acid	0.97						
565A, 565B, 565C2:								
Tell--------	Fair		Good		Good		Fair	
	Low content of organic matter	0.12					Thickest layer	0.00
	Too acid	0.84					Bottom layer	0.43
	Water erosion	0.90						
567D2:								
Elkhart------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.01	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Water erosion	0.68			Too clayey	0.57	Thickest layer	0.00
	Carbonate content	0.68						
	Too clayey	0.98						
572A, 572B:								
Loran--------	Fair		Poor		Fair		Poor	
	Water erosion	0.90	Low strength	0.00	Depth to saturated zone	0.53	Bottom layer	0.00
			Depth to saturated zone	0.53			Thickest layer	0.00
			Depth to bedrock	0.58				
			Shrink-swell	0.92				
572C2:								
Loran--------	Fair		Poor		Fair		Poor	
	Water erosion	0.90	Low strength	0.00	Depth to saturated zone	0.53	Bottom layer	0.00
			Depth to saturated zone	0.53			Thickest layer	0.00
			Depth to bedrock	0.58				
			Shrink-swell	0.87				

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
618C2:								
Senachwine---	Fair		Good		Fair		Poor	
	Low content of organic matter	0.12			Too clayey	0.57	Bottom layer	0.00
					Hard to reclaim	0.71	Thickest layer	0.00
	Carbonate content	0.16						
	Water erosion	0.90						
	Droughty	0.94						
	Too acid	0.97						
	Too clayey	0.98						
618D2:								
Senachwine---	Fair		Good		Fair		Poor	
	Low content of organic matter	0.12			Slope	0.04	Bottom layer	0.00
					Too clayey	0.57	Thickest layer	0.00
	Carbonate content	0.16			Hard to reclaim	0.84		
	Water erosion	0.90						
	Too acid	0.97						
	Too clayey	0.98						
	Droughty	0.98						
670A:								
Aholt--------	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Too clayey	0.00	Bottom layer	0.00
					Depth to saturated zone	0.00	Thickest layer	0.00
			Shrink-swell	0.00				
			Low strength	0.00				
671A, 671B:								
Biggsville---	Fair		Poor		Good		Poor	
	Water erosion	0.90	Low strength	0.00			Bottom layer	0.00
	Carbonate content	0.97					Thickest layer	0.00
672A, 672B:								
Cresent------	Fair		Good		Good		Fair	
	Too acid	0.84					Thickest layer	0.00
	Low content of organic matter	0.88					Bottom layer	0.90
672D3:								
Cresent------	Fair		Good		Fair		Fair	
	Too acid	0.84			Slope	0.04	Thickest layer	0.00
	Low content of organic matter	0.88					Bottom layer	0.22
675A:								
Greenbush----	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.88	Low strength	0.00	Too clayey	0.70	Bottom layer	0.00
			Shrink-swell	0.93			Thickest layer	0.00
	Water erosion	0.90						
	Too acid	0.97						
	Too clayey	0.98						
675B:								
Greenbush----	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.88	Low strength	0.00	Too clayey	0.70	Bottom layer	0.00
			Shrink-swell	0.91			Thickest layer	0.00
	Too acid	0.97						
	Too clayey	0.98						
	Water erosion	0.99						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
675C2:								
Greenbush----	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.88	Low strength	0.00	Too clayey	0.72	Bottom layer	0.00
			Shrink-swell	0.87			Thickest layer	0.00
	Too acid	0.97						
	Water erosion	0.99						
	Too clayey	0.99						
684B:								
Broadwell----	Fair		Poor		Fair		Fair	
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.64	Thickest layer	0.00
			Shrink-swell	0.98			Bottom layer	0.50
	Too clayey	0.98						
	Water erosion	0.99						
684C2:								
Broadwell----	Fair		Poor		Fair		Fair	
	Too acid	0.74	Low strength	0.00	Too clayey	0.86	Thickest layer	0.00
	Too clayey	0.98	Shrink-swell	0.96			Bottom layer	0.50
	Water erosion	0.99						
686A:								
Parkway------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.64	Bottom layer	0.00
			Shrink-swell	0.95			Thickest layer	0.00
	Water erosion	0.90						
	Too acid	0.97						
	Too clayey	0.98						
686B, 686B2:								
Parkway------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.64	Bottom layer	0.00
			Shrink-swell	0.99			Thickest layer	0.00
	Water erosion	0.90						
	Too acid	0.97						
	Too clayey	0.98						
689B:								
Coloma-------	Poor		Good		Poor		Fair	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.76
	Wind erosion	0.00					Bottom layer	0.76
	Low content of organic matter	0.12						
	Droughty	0.36						
	Too acid	0.88						
689D:								
Coloma-------	Poor		Good		Poor		Fair	
	Wind erosion	0.00			Too sandy	0.00	Bottom layer	0.76
	Too sandy	0.00			Slope	0.63	Thickest layer	0.83
	Low content of organic matter	0.12						
	Droughty	0.31						
	Too acid	0.88						
705A:								
Buckhart-----	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.92	Low strength	0.00	Depth to saturated zone	0.98	Bottom layer	0.00
			Shrink-swell	0.87			Thickest layer	0.00
	Water erosion	0.99	Depth to saturated zone	0.98				

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
741B:								
Oakville-----	Poor		Good		Poor		Good	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.66
	Wind erosion	0.00					Bottom layer	1.00
	Low content of organic matter	0.12						
	Droughty	0.42						
	Too acid	0.88						
741D:								
Oakville-----	Poor		Good		Poor		Good	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.69
	Wind erosion	0.00			Slope	0.63	Bottom layer	1.00
	Low content of organic matter	0.12						
	Droughty	0.42						
	Too acid	0.88						
741F:								
Oakville-----	Poor		Fair		Poor		Good	
	Too sandy	0.00	Slope	0.12	Slope	0.00	Thickest layer	0.87
	Wind erosion	0.00			Too sandy	0.00	Bottom layer	1.00
	Low content of organic matter	0.12						
	Droughty	0.29						
	Too acid	0.88						
764A:								
Coyne--------	Good		Good		Good		Fair	
							Bottom layer	0.00
							Thickest layer	0.07
764B:								
Coyne--------	Fair		Good		Good		Fair	
	Low content of organic matter	0.50					Bottom layer	0.00
							Thickest layer	0.02
	Too acid	0.95						
767A:								
Prophetstown	Fair		Poor		Poor		Poor	
	Carbonate content	0.68	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Low content of organic matter	0.88					Thickest layer	0.00
			Low strength	0.00	Carbonate content	0.68		
	Water erosion	0.90						
777A:								
Adrian-------	Poor		Poor		Poor		Fair	
	Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
	Low content of organic matter	0.50					Bottom layer	0.84
					Content of organic matter	0.00		
	Carbonate content	0.92						
800C:								
Psamments----	Poor		Good		Poor		Good	
	Too sandy	0.00			Too sandy	0.00	Bottom layer	1.00
	Wind erosion	0.00			Slope	0.91	Thickest layer	1.00
	Low content of organic matter	0.12						
	Too acid	0.88						
	Droughty	0.98						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
802B:								
Orthents	Fair		Poor		Good		Poor	
	Low content of organic matter	0.68	Low strength	0.00			Bottom layer	0.00
			Shrink-swell	0.87			Thickest layer	0.00
	Water erosion	0.90						
871B:								
Lenzburg	Fair		Fair		Fair		Poor	
	Low content of organic matter	0.24	Shrink-swell	0.87	Rock fragments	0.04	Bottom layer	0.00
					Hard to reclaim	0.99	Thickest layer	0.00
	Water erosion	0.99						
871G:								
Lenzburg	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.68	Slope	0.00	Slope	0.00	Bottom layer	0.00
			Low strength	0.00	Rock fragments	0.04	Thickest layer	0.00
	Water erosion	0.99	Shrink-swell	0.87	Hard to reclaim	0.74		
911G:								
Timula	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.24	Slope	0.00	Slope	0.00	Bottom layer	0.00
					Carbonate content	0.92	Thickest layer	0.00
	Water erosion	0.37						
	Carbonate content	0.92						
Hickory	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.12	Slope	0.00	Slope	0.00	Bottom layer	0.00
			Low strength	0.00	Too clayey	0.57	Thickest layer	0.00
	Too acid	0.88	Shrink-swell	0.97	Rock fragments	0.88		
	Too clayey	0.98						
913D:								
Marseilles	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Depth to bedrock	0.00	Slope	0.04	Bottom layer	0.00
			Low strength	0.00	Too clayey	0.44	Thickest layer	0.00
	Depth to bedrock	0.58	Shrink-swell	0.95	Depth to bedrock	0.58		
	Too clayey	0.68						
	Too acid	0.68						
	Droughty	0.73						
	Water erosion	0.99						
Hickory	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
			Shrink-swell	0.94	Too clayey	0.57	Thickest layer	0.00
	Too acid	0.54			Rock fragments	0.97		
	Too clayey	0.98			Too acid	0.98		
913D3:								
Marseilles	Fair		Poor		Fair		Poor	
	Droughty	0.16	Depth to bedrock	0.00	Slope	0.04	Bottom layer	0.00
	Low content of organic matter	0.50	Low strength	0.00	Too clayey	0.39	Thickest layer	0.00
			Shrink-swell	0.99	Depth to bedrock	0.58		
	Depth to bedrock	0.58						
	Too clayey	0.59						
	Too acid	0.68						
	Water erosion	0.99						
Hickory	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
			Shrink-swell	0.97	Too clayey	0.57	Thickest layer	0.00
	Too acid	0.54			Rock fragments	0.97		
	Too clayey	0.98			Too acid	0.98		

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
913F:								
Marseilles---	Fair		Poor		Poor		Poor	
	Depth to bedrock	0.58	Depth to bedrock	0.00	Slope	0.00	Bottom layer	0.00
	Too clayey	0.68	Low strength	0.00	Too clayey	0.49	Thickest layer	0.00
	Too acid	0.68	Slope	0.00	Depth to bedrock	0.58		
	Low content of organic matter	0.88	Shrink-swell	0.92				
	Water erosion	0.90						
	Droughty	0.99						
Hickory------	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.12	Slope	0.00	Slope	0.00	Bottom layer	0.00
			Low strength	0.00	Too clayey	0.57	Thickest layer	0.00
	Too acid	0.88	Shrink-swell	0.89	Rock fragments	0.88		
	Too clayey	0.98						
913F2:								
Marseilles---	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.50	Depth to bedrock	0.00	Slope	0.00	Bottom layer	0.00
			Low strength	0.00	Too clayey	0.39	Thickest layer	0.00
	Droughty	0.53	Slope	0.00	Depth to bedrock	0.58		
	Depth to bedrock	0.58	Shrink-swell	0.96				
	Too clayey	0.59						
	Too acid	0.68						
	Water erosion	0.99						
Hickory------	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.00	Bottom layer	0.00
			Slope	0.00	Too clayey	0.57	Thickest layer	0.00
	Too acid	0.54	Shrink-swell	0.87	Rock fragments	0.97		
	Too clayey	0.98			Too acid	0.98		
917B:								
Oakville-----	Poor		Good		Poor		Good	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.66
	Wind erosion	0.00					Bottom layer	1.00
	Low content of organic matter	0.12						
	Droughty	0.51						
	Too acid	0.88						
Tell---------	Fair		Good		Good		Fair	
	Low content of organic matter	0.12					Thickest layer	0.00
							Bottom layer	0.90
	Too acid	0.84						
	Water erosion	0.90						
917C2:								
Oakville-----	Poor		Good		Poor		Good	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.90
	Wind erosion	0.00					Bottom layer	1.00
	Low content of organic matter	0.12						
	Droughty	0.62						
	Too acid	0.88						
Tell---------	Fair		Good		Good		Fair	
	Low content of organic matter	0.12					Thickest layer	0.00
							Bottom layer	0.43
	Too acid	0.84						
	Water erosion	0.90						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
917D:								
Oakville-----	Poor		Good		Poor		Good	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.66
	Wind erosion	0.00			Slope	0.63	Bottom layer	1.00
	Low content of organic matter	0.12						
	Droughty	0.42						
	Too acid	0.88						
Tell---------	Fair		Good		Fair		Fair	
	Low content of organic matter	0.12			Slope	0.63	Thickest layer	0.00
							Bottom layer	0.90
	Too acid	0.84						
	Water erosion	0.90						
917D2:								
Oakville-----	Poor		Good		Poor		Good	
	Too sandy	0.00			Too sandy	0.00	Thickest layer	0.54
	Wind erosion	0.00			Slope	0.04	Bottom layer	1.00
	Low content of organic matter	0.12						
	Droughty	0.42						
	Too acid	0.88						
Tell---------	Fair		Good		Fair		Fair	
	Low content of organic matter	0.12			Slope	0.04	Thickest layer	0.00
							Bottom layer	0.90
	Too acid	0.84						
	Water erosion	0.90						
918D3:								
Marseilles---	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Depth to bedrock	0.00	Slope	0.04	Bottom layer	0.00
			Low strength	0.00	Too clayey	0.39	Thickest layer	0.00
	Depth to bedrock	0.58	Shrink-swell	0.87	Depth to bedrock	0.58		
	Too clayey	0.59						
	Too acid	0.68						
	Droughty	0.69						
	Water erosion	0.99						
Atlas--------	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00	Bottom layer	0.00
	Low content of organic matter	0.50	Depth to saturated zone	0.04	Depth to saturated zone	0.04	Thickest layer	0.00
	Too acid	0.88	Shrink-swell	0.32	Slope	0.04		
	Water erosion	0.99						
943D3:								
Seaton-------	Fair		Poor		Fair		Poor	
	Water erosion	0.68	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Low content of organic matter	0.88					Thickest layer	0.00
	Too acid	0.88						
Timula-------	Fair		Good		Fair		Poor	
	Low content of organic matter	0.24			Slope	0.04	Bottom layer	0.00
							Thickest layer	0.00
	Water erosion	0.37						
	Carbonate content	0.92						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
943G:								
Seaton-------	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.88	Slope	0.00	Slope	0.00	Bottom layer	0.00
	Too acid	0.88	Low strength	0.00			Thickest layer	0.00
	Water erosion	0.90						
Timula-------	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.24	Slope	0.00	Slope	0.00	Bottom layer	0.00
	Water erosion	0.37					Thickest layer	0.00
	Carbonate content	0.92						
946D2:								
Hickory------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Too acid	0.54	Shrink-swell	0.87	Too clayey	0.57	Thickest layer	0.00
	Too clayey	0.98			Rock fragments	0.97		
					Too acid	0.98		
Atlas--------	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00	Bottom layer	0.00
	Low content of organic matter	0.50	Depth to saturated zone	0.04	Depth to saturated zone	0.04	Thickest layer	0.00
	Too acid	0.88	Shrink-swell	0.26	Slope	0.04		
	Water erosion	0.99						
946D3:								
Hickory------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Too acid	0.88	Shrink-swell	0.99	Too clayey	0.57	Thickest layer	0.00
	Too clayey	0.98			Rock fragments	0.88		
Atlas--------	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00	Bottom layer	0.00
	Low content of organic matter	0.50	Depth to saturated zone	0.04	Depth to saturated zone	0.04	Thickest layer	0.00
	Too acid	0.88	Shrink-swell	0.17	Slope	0.04		
	Water erosion	0.99						
957D3:								
Elco---------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.02	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Water erosion	0.90	Shrink-swell	0.59	Too clayey	0.57	Thickest layer	0.00
	Too clayey	0.98	Depth to saturated zone	0.98	Depth to saturated zone	0.98		
Atlas--------	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00	Bottom layer	0.00
	Low content of organic matter	0.50	Depth to saturated zone	0.04	Depth to saturated zone	0.04	Thickest layer	0.00
	Too acid	0.88	Shrink-swell	0.12	Slope	0.04		
	Water erosion	0.99						
962D3:								
Sylvan-------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.00	Slope	0.04	Bottom layer	0.00
	Water erosion	0.68			Too clayey	0.58	Thickest layer	0.00
	Carbonate content	0.97						
	Too clayey	0.99						

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
962D3:								
Bold----------	Fair		Fair		Fair		Poor	
	Low content of organic matter	0.12	Low strength	0.22	Slope	0.04	Bottom layer	0.00
	Carbonate content	0.32			Carbonate content	0.32	Thickest layer	0.00
	Water erosion	0.37						
3070A:								
Beaucoup------	Fair		Poor		Poor		Poor	
	Too clayey	0.98	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
			Low strength	0.00	Too clayey	0.76	Thickest layer	0.00
			Shrink-swell	0.87				
3074A:								
Radford-------	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Low strength	0.00	Depth to saturated zone	0.14	Bottom layer	0.00
	Water erosion	0.68	Depth to saturated zone	0.14			Thickest layer	0.00
3107+:								
Sawmill-------	Fair		Poor		Poor		Poor	
	Too clayey	0.98	Low strength	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
			Depth to saturated zone	0.00	Too clayey	0.93	Thickest layer	0.00
			Shrink-swell	0.89				
3107A:								
Sawmill-------	Fair		Poor		Poor		Poor	
	Too clayey	0.98	Low strength	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
			Depth to saturated zone	0.00	Too clayey	0.98	Thickest layer	0.00
			Shrink-swell	0.87				
3284A:								
Tice----------	Fair		Fair		Fair		Poor	
	Low content of organic matter	0.50	Depth to saturated zone	0.04	Depth to saturated zone	0.04	Bottom layer	0.00
	Too clayey	0.98	Low strength	0.22	Too clayey	0.64	Thickest layer	0.00
			Shrink-swell	0.87				
3302A:								
Ambraw--------	Fair		Poor		Poor		Poor	
	Too clayey	0.68	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Too acid	0.97	Low strength	0.00	Too clayey	0.56	Thickest layer	0.00
			Shrink-swell	0.95				
3400A:								
Calco---------	Fair		Poor		Poor		Poor	
	Too clayey	0.08	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Carbonate content	0.97	Low strength	0.00	Too clayey	0.08	Thickest layer	0.00
			Shrink-swell	0.87	Carbonate content	0.97		
3415A:								
Orion---------	Fair		Poor		Fair		Poor	
	Water erosion	0.90	Low strength	0.00	Depth to saturated zone	0.14	Bottom layer	0.00
			Depth to saturated zone	0.14			Thickest layer	0.00

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
7100A:								
Palms	Poor		Poor		Poor		Poor	
	Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Low content of organic matter	0.00	Low strength	0.22	Content of organic matter	0.00	Thickest layer	0.00
7302A:								
Ambraw	Fair		Poor		Poor		Poor	
	Too acid	0.97	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
			Low strength	0.00			Thickest layer	0.00
			Shrink-swell	0.98				
7404A:								
Titus	Fair		Poor		Poor		Poor	
	Too clayey	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Low content of organic matter	0.68	Low strength	0.00	Too clayey	0.12	Thickest layer	0.00
			Shrink-swell	0.21				
7654A:								
Moline	Poor		Poor		Poor		Poor	
	Too clayey	0.00	Depth to saturated zone	0.00	Too clayey	0.00	Bottom layer	0.00
	Low content of organic matter	0.12	Shrink-swell	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
	Carbonate content	0.92	Low strength	0.00				
	Water erosion	0.99						
7682A:								
Medway	Fair		Fair		Fair		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.32	Depth to saturated zone	0.32	Bottom layer	0.00
							Thickest layer	0.00
7777A:								
Adrian	Poor		Poor		Poor		Fair	
	Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
	Carbonate content	0.92			Content of organic matter	0.00	Bottom layer	0.84
8107+:								
Sawmill	Good		Poor		Poor		Fair	
			Low strength	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
			Depth to saturated zone	0.00			Bottom layer	0.01
			Shrink-swell	0.87				
8166A:								
Cohoctah	Fair		Poor		Poor		Poor	
	Low content of organic matter	0.12	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
							Thickest layer	0.00
8284A:								
Tice	Fair		Poor		Fair		Poor	
	Low content of organic matter	0.50	Low strength	0.00	Depth to saturated zone	0.04	Bottom layer	0.00
	Too acid	0.97	Depth to saturated zone	0.04			Thickest layer	0.00
			Shrink-swell	0.87				

Table 16.--Construction Materials--Continued

Map symbol and soil name	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value	Potential as source of sand: Rating class	Value
8302A:								
Ambraw	Fair		Poor		Poor		Poor	
	Too acid	0.97	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
							Thickest layer	0.00
			Low strength	0.00				
			Shrink-swell	0.99				
8400A:								
Calco	Fair		Poor		Poor		Poor	
	Too clayey	0.08	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Bottom layer	0.00
	Carbonate content	0.97					Thickest layer	0.00
			Low strength	0.00	Too clayey	0.08		
			Shrink-swell	0.87	Carbonate content	0.97		
8415A:								
Orion	Fair		Poor		Fair		Poor	
	Water erosion	0.99	Low strength	0.00	Depth to saturated zone	0.14	Bottom layer	0.00
			Depth to saturated zone	0.14			Thickest layer	0.00
8492A:								
Normandy	Fair		Poor		Poor		Good	
	Water erosion	0.68	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
							Bottom layer	1.00
			Low strength	0.00				
			Shrink-swell	0.92				
8499A:								
Fella	Fair		Poor		Poor		Fair	
	Carbonate content	0.80	Depth to saturated zone	0.00	Depth to saturated zone	0.00	Thickest layer	0.00
	Low content of organic matter	0.88					Bottom layer	0.22
			Low strength	0.00	Too clayey	0.98		
	Too clayey	0.98	Shrink-swell	0.92				
8638A:								
Muskego	Poor		Poor		Poor		Poor	
	Wind erosion	0.00	Depth to saturated zone	0.00	Carbonate content	0.00	Bottom layer	0.00
	Carbonate content	0.00			Depth to saturated zone	0.00	Thickest layer	0.00
			Low strength	0.78				
			Shrink-swell	0.97	Rock fragments	0.92		

Table 17a.--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. See text for further explanation of ratings in this table)

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
8D2:						
Hickory	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
	Slope	0.02				
8D3:						
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.04	Deep to water	1.00
	Slope	0.02				
8F:						
Hickory	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
	Slope	0.36				
8F2:						
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.08	Deep to water	1.00
	Slope	0.36				
17A:						
Keomah	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.23		
19D2:						
Sylvan	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.08	Deep to water	1.00
	Slope	0.02				
19D3:						
Sylvan	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.18	Deep to water	1.00
	Slope	0.02				
19F:						
Sylvan	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.40	Deep to water	1.00
	Slope	0.36				
22D2:						
Westville	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
	Slope	0.02				
22D3:						
Westville	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
	Slope	0.02				
43A:						
Ipava	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.96
					Cutbanks cave	0.10
					Deep to water	0.01

Table 17a.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
45A:						
Denny---------------	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.04	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Piping	0.05		
49A:						
Watseka-------------	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.99		
51A:						
Muscatune-----------	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.08		
67A:						
Harpster------------	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
68A:						
Sable---------------	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
69A:						
Milford-------------	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.04	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
81A:						
Littleton-----------	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.83		
86B:						
Osco----------------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.01	Deep to water	1.00
86C2:						
Osco----------------	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
87A, 87B, 87B2, 87C2:						
Dickinson-----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.90	Deep to water	1.00
88A, 88B, 88C:						
Sparta--------------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.90	Deep to water	1.00

Table 17a.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
100A:						
Palms	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
			Depth to saturated zone	1.00		
			Piping	1.00		
102A:						
La Hogue	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
			Piping	0.92		
			Seepage	0.11		
119D2, 119D3:						
Elco	Somewhat limited		Somewhat limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.68	Slow refill	0.98
	Slope	0.02			Deep to water	0.14
					Cutbanks cave	0.10
125A:						
Selma	Very limited		Very limited		Very limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Piping	0.93		
			Seepage	0.09		
148B:						
Proctor	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Piping	0.59	Deep to water	1.00
			Seepage	0.01		
148C2:						
Proctor	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Piping	0.40	Deep to water	1.00
			Seepage	0.01		
149A:						
Brenton	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Cutbanks cave	1.00
					Slow refill	0.28
			Piping	0.65		
			Seepage	0.03		
152A:						
Drummer	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00	Slow refill	0.28
153A:						
Pella	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Piping	0.01		

Table 17a.--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
172A:						
Hoopeston	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
			Seepage	0.76		
198A:						
Elburn	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
					Deep to water	0.01
			Piping	0.30		
			Seepage	0.03		
199A:						
Plano	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Piping	0.59	Deep to water	1.00
199B:						
Plano	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Piping	0.76	Deep to water	1.00
			Seepage	0.10		
199C2:						
Plano	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Piping	0.46	Deep to water	1.00
			Seepage	0.10		
200A:						
Orio	Very limited		Very limited		Very limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Seepage	0.76		
201A:						
Gilford	Very limited		Very limited		Very limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Seepage	0.90		
206A:						
Thorp	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
			Depth to saturated zone	1.00		
			Piping	0.72		
			Seepage	0.03		
212B:						
Thebes	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.22	Deep to water	1.00
212D3:						
Thebes	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Piping	1.00	Deep to water	1.00
	Slope	0.02	Seepage	0.22		

Table 17a.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
219A:						
Millbrook	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.74		
250C2:						
Velma	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
250D2:						
Velma	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.01	Deep to water	1.00
	Slope	0.02				
250E2:						
Velma	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.03	Deep to water	1.00
	Slope	0.17				
257A:						
Clarksdale	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
259B:						
Assumption	Somewhat limited		Somewhat limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.68	Slow refill	0.28
					Deep to water	0.14
					Cutbanks cave	0.10
259C2:						
Assumption	Somewhat limited		Somewhat limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.68	Slow refill	0.98
					Deep to water	0.14
					Cutbanks cave	0.10
259D2:						
Assumption	Somewhat limited		Somewhat limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.68	Slow refill	0.98
	Slope	0.02			Deep to water	0.14
					Cutbanks cave	0.10
261A:						
Niota	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.54	Ponding	1.00	Slow refill	0.46
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Piping	0.01		
262A:						
Denrock	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
			Depth to saturated zone	1.00		
			Piping	0.04		
274B, 274C2:						
Seaton	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.88	Deep to water	1.00

Table 17a.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
274D2:						
Seaton	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.88	Deep to water	1.00
	Slope	0.02				
275A:						
Joy	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.70		
277C2:						
Port Byron	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.89	Deep to water	1.00
279A, 279B:						
Rozetta	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
280B:						
Fayette	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.09	Deep to water	1.00
280C2:						
Fayette	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.03	Deep to water	1.00
280D2:						
Fayette	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.03	Deep to water	1.00
	Slope	0.02				
280D3:						
Fayette	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.12	Deep to water	1.00
	Slope	0.02				
430A, 430B:						
Raddle	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Deep to water	1.00
457A:						
Booker	Not limited		Very limited		Very limited	
			Ponding	1.00	Slow refill	1.00
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Hard to pack	0.99		
465A:						
Montgomery	Not limited		Very limited		Somewhat limited	
			Ponding	1.00	Slow refill	0.96
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Hard to pack	0.83		
485A:						
Richwood	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
			Piping	0.96		

Table 17a.--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
485B:						
Richwood	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
			Piping	1.00		
487A:						
Joyce	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Piping	1.00		
			Seepage	0.22		
488A:						
Hooppole	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Piping	1.00		
			Seepage	0.90		
546B, 546C2:						
Keltner	Somewhat limited		Somewhat limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.86	Slow refill	0.28
	Depth to bedrock	0.01			Cutbanks cave	0.10
			Piping	0.14	Deep to water	0.06
			Thin layer	0.11		
549D2:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Depth to bedrock	0.11	Thin layer	0.85	Deep to water	1.00
	Slope	0.02	Piping	0.02		
549F:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.36	Thin layer	0.85	Deep to water	1.00
	Depth to bedrock	0.11	Hard to pack	0.03		
549F2:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.36	Thin layer	0.85	Deep to water	1.00
	Depth to bedrock	0.11				
564A, 564B, 564B2:						
Waukegan	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.90	Deep to water	1.00
565A, 565B, 565C2:						
Tell	Very limited		Very limited		Very limited	
	Seepage	1.00	Piping	1.00	Deep to water	1.00
			Seepage	0.43		
567D2:						
Elkhart	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.08	Deep to water	1.00
	Slope	0.02				
572A, 572B, 572C2:						
Loran	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
	Depth to bedrock	0.01			Cutbanks cave	0.10
			Thin layer	0.11	Deep to water	0.01

Table 17a.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
618C2:						
Senachwine----------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.84	Deep to water	1.00
618D2:						
Senachwine----------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.82	Deep to water	1.00
	Slope	0.02				
670A:						
Aholt---------------	Not limited		Very limited		Very limited	
			Ponding	1.00	Slow refill	1.00
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Hard to pack	1.00		
671A, 671B:						
Biggsville----------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.89	Deep to water	1.00
672A:						
Cresent-------------	Very limited		Very limited		Very limited	
	Seepage	1.00	Piping	1.00	Deep to water	1.00
			Seepage	0.90		
672B:						
Cresent-------------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.90	Deep to water	1.00
672D3:						
Cresent-------------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.22	Deep to water	1.00
	Slope	0.02				
675A:						
Greenbush-----------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.12	Deep to water	1.00
675B:						
Greenbush-----------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.07	Deep to water	1.00
675C2:						
Greenbush-----------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.03	Deep to water	1.00
684B:						
Broadwell-----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Piping	0.98	Deep to water	1.00
			Seepage	0.50		
684C2:						
Broadwell-----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Piping	0.59	Deep to water	1.00
			Seepage	0.50		
686A, 686B, 686B2:						
Parkway-------------	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00

Table 17a.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
689B:						
Coloma	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
689D:						
Coloma	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
	Slope	0.01				
705A:						
Buckhart	Somewhat limited		Somewhat limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.68	Slow refill	0.28
					Deep to water	0.14
			Piping	0.03	Cutbanks cave	0.10
741B:						
Oakville	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
741D:						
Oakville	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
	Slope	0.01				
741F:						
Oakville	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
	Slope	0.20				
764A:						
Coyne	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Piping	0.90	Deep to water	1.00
			Seepage	0.07		
764B:						
Coyne	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Deep to water	1.00
			Seepage	0.02		
767A:						
Prophetstown	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00	Slow refill	0.28
			Piping	0.97		
777A:						
Adrian	Very limited		Very limited		Very limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Seepage	0.84		
800C:						
Psamments	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
802B:						
Orthents	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.04	Piping	0.50	Deep to water	1.00

Table 17a.--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
871B:						
Lenzburg	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.04	Piping	0.06	Deep to water	1.00
871G:						
Lenzburg	Very limited		Not limited		Very limited	
	Slope	1.00			Deep to water	1.00
	Seepage	0.04				
911G:						
Timula	Somewhat limited		Very limited		Very limited	
	Slope	0.99	Piping	1.00	Deep to water	1.00
	Seepage	0.72				
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.99	Piping	0.01	Deep to water	1.00
	Seepage	0.72				
913D:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Depth to bedrock	0.11	Thin layer	0.85	Deep to water	1.00
	Slope	0.02	Piping	0.01		
Hickory	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
	Slope	0.02				
913D3:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Depth to bedrock	0.11	Thin layer	0.85	Deep to water	1.00
	Slope	0.02	Piping	0.39		
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.01	Deep to water	1.00
	Slope	0.02				
913F:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.32	Thin layer	0.85	Deep to water	1.00
	Depth to bedrock	0.11				
Hickory	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
	Slope	0.32				
913F2:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.32	Thin layer	0.85	Deep to water	1.00
	Depth to bedrock	0.11	Piping	0.02		
Hickory	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
	Slope	0.32				
917B:						
Oakville	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
Tell	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.90	Deep to water	1.00

Table 17a.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
917C2:						
Oakville	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
Tell	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.43	Deep to water	1.00
917D:						
Oakville	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
	Slope	0.01				
Tell	Very limited		Very limited		Very limited	
	Seepage	1.00	Piping	1.00	Deep to water	1.00
	Slope	0.01	Seepage	0.90		
917D2:						
Oakville	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Deep to water	1.00
	Slope	0.02				
Tell	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.90	Deep to water	1.00
	Slope	0.02				
918D3:						
Marseilles	Somewhat limited		Somewhat limited		Very limited	
	Depth to bedrock	0.11	Thin layer	0.85	Deep to water	1.00
	Slope	0.02	Hard to pack	0.03		
Atlas	Somewhat limited		Very limited		Very limited	
	Slope	0.02	Depth to saturated zone	1.00	Slow refill	1.00
					Cutbanks cave	0.10
			Hard to pack	0.79		
943D3:						
Seaton	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.88	Deep to water	1.00
	Slope	0.02				
Timula	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Deep to water	1.00
	Slope	0.02				
943G:						
Seaton	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.97	Piping	0.88	Deep to water	1.00
	Seepage	0.72				
Timula	Somewhat limited		Very limited		Very limited	
	Slope	0.97	Piping	1.00	Deep to water	1.00
	Seepage	0.72				
946D2:						
Hickory	Somewhat limited		Not limited		Very limited	
	Seepage	0.72			Deep to water	1.00
	Slope	0.02				
Atlas	Somewhat limited		Very limited		Very limited	
	Slope	0.02	Depth to saturated zone	1.00	Slow refill	1.00
					Cutbanks cave	0.10
			Hard to pack	0.85		

Table 17a.--Water Management--Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
946D3:						
Hickory	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.02	Deep to water	1.00
	Slope	0.02				
Atlas	Somewhat limited		Very limited		Very limited	
	Slope	0.02	Depth to saturated zone	1.00	Slow refill	1.00
					Cutbanks cave	0.10
			Hard to pack	0.93		
957D3:						
Elco	Somewhat limited		Somewhat limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	0.68	Slow refill	0.96
	Slope	0.02			Deep to water	0.14
					Cutbanks cave	0.10
Atlas	Somewhat limited		Very limited		Very limited	
	Slope	0.02	Depth to saturated zone	1.00	Slow refill	1.00
					Cutbanks cave	0.10
			Hard to pack	0.97		
962D3:						
Sylvan	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.10	Deep to water	1.00
	Slope	0.02				
Bold	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Piping	1.00	Deep to water	1.00
	Slope	0.02				
3070A:						
Beaucoup	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.04	Ponding	1.00	Slow refill	0.96
			Depth to saturated zone	1.00	Cutbanks cave	0.10
3074A:						
Radford	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.33		
3107+:						
Sawmill	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.01		
3107A:						
Sawmill	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
3284A:						
Tice	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	0.22		

Table 17a.--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
3302A:						
Ambraw	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.54	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Piping	0.04		
3400A:						
Calco	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
3415A:						
Orion	Somewhat limited		Very limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00	Cutbanks cave	1.00
					Slow refill	0.28
			Piping	1.00		
7100A:						
Palms	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
			Depth to saturated zone	1.00		
7302A:						
Ambraw	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Piping	0.34		
7404A:						
Titus	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.04	Ponding	1.00	Slow refill	0.96
			Depth to saturated zone	1.00	Cutbanks cave	0.10
7654A:						
Moline	Not limited		Very limited		Somewhat limited	
			Ponding	1.00	Slow refill	0.96
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Hard to pack	1.00		
7682A:						
Medway	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Piping	0.25		
			Seepage	0.01		
7777A:						
Adrian	Very limited		Very limited		Very limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Seepage	0.84		

Table 17a.--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
8107+:						
Sawmill	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
8166A:						
Cohoctah	Very limited		Very limited		Very limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Seepage	0.01		
8284A:						
Tice	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
8302A:						
Ambraw	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.54	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
			Piping	0.35		
8400A:						
Calco	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Ponding	1.00	Slow refill	0.28
			Depth to saturated zone	1.00	Cutbanks cave	0.10
8415A:						
Orion	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	1.00		
8492A:						
Normandy	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	1.00		
			Piping	0.82		
8499A:						
Fella	Very limited		Very limited		Very limited	
	Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
			Depth to saturated zone	1.00		
			Piping	0.52		
			Seepage	0.22		
8638A:						
Muskego	Not limited		Very limited		Somewhat limited	
			Content of organic matter	1.00	Cutbanks cave	0.10
			Depth to saturated zone	1.00		
			Piping	1.00		

Table 17b.--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. See text for further explanation of ratings in this table)

Map symbol and soil name	Constructing grassed waterways and surface drains		Constructing terraces and diversions		Tile drains and underground outlets	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
8D2, 8D3, 8F, 8F2:						
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
17A:						
Keomah	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Restricted permeability	0.91
	Restricted permeability	0.91	Restricted permeability	0.91		
19D2, 19D3, 19F:						
Sylvan	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
22D2, 22D3:						
Westville	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
43A:						
Ipava	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	1.00	Restricted permeability	0.22
	Restricted permeability	0.22	Restricted permeability	0.22		
45A:						
Denny	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
	Restricted permeability	0.91	Ponding	1.00	Restricted permeability	0.91
			Restricted permeability	0.91		
49A:						
Watseka	Very limited		Very limited		Very limited	
	Droughty	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
	Depth to saturated zone	1.00	Too sandy	1.00		
51A:						
Muscatune	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
67A:						
Harpster	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	0.50
			Ponding	0.50		
68A:						
Sable	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	0.50
			Ponding	0.50		
69A:						
Milford	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	0.50
	Restricted permeability	0.22	Ponding	0.50	Restricted permeability	0.22
			Restricted permeability	0.22		
81A:						
Littleton	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
86B:						
Osco	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
86C2:						
Osco	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74
87A:						
Dickinson	Not limited		Very limited		Very limited	
			Too sandy	1.00	Cutbanks cave	1.00
					Depth to saturated zone	1.00
87B, 87B2:						
Dickinson	Not limited		Very limited		Very limited	
			Too sandy	1.00	Cutbanks cave	1.00
					Depth to saturated zone	1.00
					Slope	0.01
87C2:						
Dickinson	Not limited		Very limited		Very limited	
			Too sandy	1.00	Cutbanks cave	1.00
					Depth to saturated zone	1.00
					Slope	0.74

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
88A:						
Sparta	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
					Depth to saturated zone	1.00
88B:						
Sparta	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
					Depth to saturated zone	1.00
					Slope	0.04
88C:						
Sparta	Very limited		Very limited		Very limited	
	Slope	1.00	Too sandy	1.00	Cutbanks cave	1.00
	Droughty	1.00	Slope	1.00	Depth to saturated zone	1.00
					Slope	0.96
100A:						
Palms	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Subsidence	1.00
					Frost action	1.00
			Ponding	0.50	Ponding	0.50
102A:						
La Hogue	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
119D2, 119D3:						
Elco	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Frost action	1.00
	Restricted permeability	0.40	Depth to saturated zone	1.00	Restricted permeability	0.40
	Depth to saturated zone	0.25	Restricted permeability	0.40		
125A:						
Selma	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
					Ponding	0.50
			Ponding	0.50		
148B:						
Proctor	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
148C2:						
Proctor	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains		Constructing terraces and diversions		Tile drains and underground outlets	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
149A:						
Brenton	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
152A:						
Drummer	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
			Ponding	0.50	Ponding	0.50
153A:						
Pella	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
			Ponding	0.50	Ponding	0.50
172A:						
Hoopeston	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.96	Depth to saturated zone	1.00	Frost action	1.00
198A:						
Elburn	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	1.00		
199A:						
Plano	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
199B:						
Plano	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
199C2:						
Plano	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74
200A:						
Orio	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
					Cutbanks cave	1.00
	Restricted permeability	0.22	Ponding	1.00	Frost action	1.00
			Too sandy	1.00	Restricted permeability	0.22
			Restricted permeability	0.22		
201A:						
Gilford	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
					Frost action	1.00
			Too sandy	1.00	Ponding	0.50
			Ponding	0.50		

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
206A:						
Thorp	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Restricted permeability	0.91
	Restricted permeability	0.91	Restricted permeability	0.91	Ponding	0.50
			Ponding	0.50		
212B:						
Thebes	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
212D3:						
Thebes	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
219A:						
Millbrook	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
250C2:						
Velma	Not limited		Not limited		Very limited	
					Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74
250D2, 250E2:						
Velma	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
					Frost action	1.00
257A:						
Clarksdale	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Restricted permeability	0.22
	Restricted permeability	0.22	Restricted permeability	0.22		
259B:						
Assumption	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Restricted permeability	0.40	Depth to saturated zone	1.00	Restricted permeability	0.40
	Depth to saturated zone	0.25	Restricted permeability	0.40	Slope	0.01

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
259C2:						
Assumption----------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Restricted permeability	0.40	Depth to saturated zone	1.00	Slope	0.74
	Depth to saturated zone	0.25	Restricted permeability	0.40	Restricted permeability	0.40
259D2:						
Assumption----------	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Frost action	1.00
	Restricted permeability	0.40	Depth to saturated zone	1.00	Restricted permeability	0.40
	Depth to saturated zone	0.25	Restricted permeability	0.40		
261A:						
Niota---------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
	Restricted permeability	1.00	Ponding	1.00	Restricted permeability	1.00
			Restricted permeability	1.00		
262A:						
Denrock-------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Restricted permeability	1.00
	Restricted permeability	1.00	Restricted permeability	1.00		
274B:						
Seaton--------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
274C2:						
Seaton--------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74
274D2:						
Seaton--------------	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
275A:						
Joy-----------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
277C2:						
Port Byron----------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74
279A:						
Rozetta-------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
279B:						
Rozetta-------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
280B:						
Fayette-------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
280C2:						
Fayette-------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74
280D2, 280D3:						
Fayette-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
430A:						
Raddle--------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
430B:						
Raddle--------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
457A:						
Booker--------------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	1.00	Ponding	1.00	Restricted permeability	1.00
			Restricted permeability	1.00		

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains		Constructing terraces and diversions		Tile drains and underground outlets	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
465A:						
Montgomery	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
	Restricted permeability	0.91	Ponding	1.00	Restricted permeability	0.91
			Restricted permeability	0.91		
485A:						
Richwood	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
485B:						
Richwood	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
487A:						
Joyce	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	0.96	Depth to saturated zone	1.00		
488A:						
Hooppole	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
546B:						
Keltner	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Restricted permeability	0.91	Depth to saturated zone	1.00	Restricted permeability	0.91
	Depth to saturated zone	0.47	Restricted permeability	0.91	Slope	0.01
546C2:						
Keltner	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Restricted permeability	0.91	Depth to saturated zone	1.00	Restricted permeability	0.91
	Depth to saturated zone	0.47	Restricted permeability	0.91	Slope	0.74
549D2:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.94	Restricted permeability	0.94	Frost action	1.00
	Depth to soft bedrock	0.42	Depth to soft bedrock	0.42	Restricted permeability	0.94
					Depth to rock	0.11

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
549F, 549F2:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.91	Restricted permeability	0.91	Frost action	1.00
	Depth to soft bedrock	0.42	Depth to soft bedrock	0.42	Restricted permeability	0.91
					Depth to rock	0.11
564A:						
Waukegan	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Cutbanks cave	1.00
			Too sandy	1.00	Depth to saturated zone	1.00
564B, 564B2:						
Waukegan	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Cutbanks cave	1.00
			Too sandy	1.00	Depth to saturated zone	1.00
					Slope	0.01
565A:						
Tell	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Cutbanks cave	1.00
			Too sandy	1.00	Depth to saturated zone	1.00
					Frost action	1.00
565B:						
Tell	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Cutbanks cave	1.00
			Too sandy	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
565C2:						
Tell	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Cutbanks cave	1.00
			Too sandy	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74
567D2:						
Elkhart	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
572A:						
Loran	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	1.00		

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
572B:						
Loran	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	1.00	Slope	0.01
572C2:						
Loran	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	0.86	Depth to saturated zone	1.00	Slope	0.74
618C2:						
Senachwine	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.22	Restricted permeability	0.22	Slope	0.74
					Restricted permeability	0.22
618D2:						
Senachwine	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.22	Restricted permeability	0.22	Restricted permeability	0.22
670A:						
Aholt	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Restricted permeability	1.00
	Restricted permeability	1.00	Restricted permeability	1.00	Ponding	0.50
			Ponding	0.50		
671A:						
Biggsville	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
671B:						
Biggsville	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
672A:						
Cresent	Not limited		Not limited		Very limited	
					Depth to saturated zone	1.00
672B:						
Cresent	Not limited		Not limited		Very limited	
					Depth to saturated zone	1.00
					Slope	0.01

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
672D3:						
Cresent-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
675A:						
Greenbush-----------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
675B:						
Greenbush-----------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
675C2:						
Greenbush-----------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74
684B:						
Broadwell-----------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
684C2:						
Broadwell-----------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74
686A:						
Parkway-------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
686B, 686B2:						
Parkway-------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.01
689B:						
Coloma--------------	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
					Depth to saturated zone	1.00
					Slope	0.04

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
689D:						
Coloma	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
	Slope	1.00	Slope	1.00	Depth to saturated zone	1.00
					Slope	1.00
705A:						
Buckhart	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	0.25	Depth to saturated zone	1.00		
741B:						
Oakville	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
					Depth to saturated zone	1.00
					Slope	0.04
741D, 741F:						
Oakville	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
	Slope	1.00	Slope	1.00	Depth to saturated zone	1.00
					Slope	1.00
764A:						
Coyne	Not limited		Not limited		Very limited	
					Depth to saturated zone	1.00
764B:						
Coyne	Not limited		Not limited		Very limited	
					Depth to saturated zone	1.00
					Slope	0.01
767A:						
Prophetstown	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	0.50
			Ponding	0.50		
777A:						
Adrian	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
					Cutbanks cave	1.00
			Ponding	1.00	Subsidence	1.00
			Too sandy	1.00	Frost action	1.00
800C:						
Psamments	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
	Slope	1.00	Slope	1.00	Depth to saturated zone	1.00
					Slope	0.99

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
802B:						
Orthents	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.22	Restricted permeability	0.22	Restricted permeability	0.22
					Slope	0.04
871B:						
Lenzburg	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.22	Restricted permeability	0.22	Restricted permeability	0.22
	Large stones	0.18	Large stones	0.18	Slope	0.04
871G:						
Lenzburg	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
	Large stones	0.22	Large stones	0.22	Restricted permeability	0.22
	Restricted permeability	0.22	Restricted permeability	0.22		
911G:						
Timula	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
913D:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.94	Restricted permeability	0.94	Frost action	1.00
	Depth to soft bedrock	0.42	Depth to soft bedrock	0.42	Restricted permeability	0.94
					Depth to rock	0.11
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
913D3:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
	Droughty	1.00	Restricted permeability	0.94	Frost action	1.00
	Restricted permeability	0.94	Depth to soft bedrock	0.42	Restricted permeability	0.94
	Depth to soft bedrock	0.42			Depth to rock	0.11

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
913D3:						
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
913F:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.91	Restricted permeability	0.91	Frost action	1.00
	Depth to soft bedrock	0.42	Depth to soft bedrock	0.42	Restricted permeability	0.91
					Depth to rock	0.11
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
913F2:						
Marseilles	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.94	Restricted permeability	0.94	Frost action	1.00
	Depth to soft bedrock	0.42	Depth to soft bedrock	0.42	Restricted permeability	0.94
					Depth to rock	0.11
Hickory	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
917B:						
Oakville	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
					Depth to saturated zone	1.00
					Slope	0.04
Tell	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Cutbanks cave	1.00
			Too sandy	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.04
917C2:						
Oakville	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
					Depth to saturated zone	1.00
					Slope	0.74
Tell	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Cutbanks cave	1.00
			Too sandy	1.00	Depth to saturated zone	1.00
					Frost action	1.00
					Slope	0.74

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
917D, 917D2:						
Oakville------------	Very limited		Very limited		Very limited	
	Droughty	1.00	Too sandy	1.00	Cutbanks cave	1.00
	Slope	1.00	Slope	1.00	Depth to saturated zone	1.00
					Slope	1.00
Tell----------------	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Cutbanks cave	1.00
	Slope	1.00	Too sandy	1.00	Depth to saturated zone	1.00
			Slope	1.00	Frost action	1.00
					Slope	1.00
918D3:						
Marseilles----------	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
	Restricted permeability	0.91	Restricted permeability	0.91	Frost action	1.00
	Depth to soft bedrock	0.42	Depth to soft bedrock	0.42	Restricted permeability	0.91
					Depth to rock	0.11
Atlas---------------	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Restricted permeability	1.00
	Restricted permeability	1.00	Restricted permeability	1.00		
943D3, 943G:						
Seaton--------------	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
Timula--------------	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
946D2, 946D3:						
Hickory-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Depth to saturated zone	1.00
Atlas---------------	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Restricted permeability	1.00
	Restricted permeability	1.00	Restricted permeability	1.00		

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
957D3:						
Elco	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Frost action	1.00
	Restricted permeability	0.40	Depth to saturated zone	1.00	Restricted permeability	0.40
	Depth to saturated zone	0.25	Restricted permeability	0.40		
Atlas	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Frost action	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Restricted permeability	1.00
	Restricted permeability	1.00	Restricted permeability	1.00		
962D3:						
Sylvan	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
Bold	Very limited		Very limited		Very limited	
	Slope	1.00	Water erosion	1.00	Slope	1.00
	Water erosion	1.00	Slope	1.00	Depth to saturated zone	1.00
					Frost action	1.00
3070A:						
Beaucoup	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	0.22	Ponding	1.00	Flooding	1.00
			Restricted permeability	0.22	Frost action	1.00
					Restricted permeability	0.22
3074A:						
Radford	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
3107+, 3107A:						
Sawmill	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
					Frost action	1.00
3284A:						
Tice	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
					Frost action	1.00
3302A:						
Ambraw	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
	Restricted permeability	0.22	Ponding	1.00	Flooding	1.00
			Restricted permeability	0.22	Frost action	1.00
					Restricted permeability	0.22

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
3400A:						
Calco	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
					Frost action	1.00
			Ponding	0.50	Ponding	0.50
3415A:						
Orion	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
7100A:						
Palms	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
					Subsidence	1.00
			Ponding	1.00	Frost action	1.00
7302A:						
Ambraw	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
					Ponding	0.50
	Restricted permeability	0.22	Ponding	0.50	Restricted permeability	0.22
			Restricted permeability	0.22		
7404A:						
Titus	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
					Restricted permeability	0.91
	Restricted permeability	0.91	Restricted permeability	0.91	Ponding	0.50
			Ponding	0.50		
7654A:						
Moline	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
					Restricted permeability	0.91
	Restricted permeability	0.91	Ponding	1.00		
			Restricted permeability	0.91		
7682A:						
Medway	Somewhat limited		Very limited		Very limited	
	Depth to saturated zone	0.95	Depth to saturated zone	1.00	Frost action	1.00
7777A:						
Adrian	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
					Cutbanks cave	1.00
			Ponding	1.00	Subsidence	1.00
			Too sandy	1.00	Frost action	1.00
8107+:						
Sawmill	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
					Frost action	1.00

Table 17b.--Water Management--Continued

Map symbol and soil name	Constructing grassed waterways and surface drains: Rating class and limiting features	Value	Constructing terraces and diversions: Rating class and limiting features	Value	Tile drains and underground outlets: Rating class and limiting features	Value
8166A:						
Cohoctah	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
					Flooding	1.00
			Too sandy	1.00	Frost action	1.00
			Ponding	0.50	Ponding	0.50
8284A:						
Tice	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
					Frost action	1.00
8302A:						
Ambraw	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
					Frost action	1.00
	Restricted permeability	0.22	Ponding	0.50	Ponding	0.50
			Restricted permeability	0.22	Restricted permeability	0.22
8400A:						
Calco	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
					Frost action	1.00
			Ponding	0.50	Ponding	0.50
8415A:						
Orion	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
8492A:						
Normandy	Very limited		Very limited		Very limited	
	Water erosion	1.00	Water erosion	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Frost action	1.00
8499A:						
Fella	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
					Frost action	1.00
			Ponding	0.50	Ponding	0.50
8638A:						
Muskego	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Subsidence	1.00
					Flooding	1.00
	Restricted permeability	0.91	Restricted permeability	0.91	Frost action	1.00
					Restricted permeability	0.91

Table 18.--Engineering Index Properties

(Absence of an entry indicates that the data were not estimated)

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
8D2:												
Hickory---------	0-6	Silt loam	CL, CL-ML, ML	A-6, A-4	0	0-5	95-100	90-100	75-100	55-100	20-35	3-15
	6-51	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	85-100	70-100	65-95	50-80	30-50	15-30
	51-60	Loam, clay loam, gravelly clay loam	CL, CL-ML, SC, SC-SM	A-6, A-4, A-2	0-1	0-5	85-100	70-95	45-95	25-75	20-40	5-20
8D3:												
Hickory---------	0-5	Clay loam	CL	A-6, A-7	0	0-5	95-100	90-100	80-100	65-80	30-50	15-30
	5-30	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	85-100	70-100	65-95	50-85	30-50	15-30
	30-40	Clay loam, loam, gravelly clay loam	CL, SC	A-6, A-4	0-1	0-5	85-100	70-100	65-95	50-85	30-50	8-30
	40-60	Clay loam, loam, gravelly clay loam	CL, CL-ML, SC, SC-SM	A-6, A-4, A-2	0-1	0-5	85-100	70-95	45-95	25-75	20-40	5-20
8F:												
Hickory---------	0-12	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0-5	95-100	90-100	75-100	55-100	20-35	3-15
	12-53	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	85-100	70-100	65-95	50-85	30-50	15-30
	53-58	Loam, sandy loam, gravelly clay loam	CL, CL-ML, SC, SC-SM	A-6, A-4, A-2	0-1	0-5	85-100	70-95	45-95	25-75	20-40	5-20
	58-63	Loam, sandy loam, gravelly clay loam	CL, CL-ML, SC, SC-SM	A-6, A-4, A-2	0-1	0-5	85-100	70-95	45-95	25-75	20-40	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
8F2:												
Hickory---------	0-12	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0-5	95-100	90-100	75-100	55-100	20-35	8-15
	12-46	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	85-100	70-100	65-95	50-85	30-50	15-30
	46-72	Sandy loam, loam, gravelly clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0-1	0-5	85-100	70-95	45-95	25-75	20-40	5-20
17A:												
Keomah----------	0-11	Silt loam	CL, ML	A-4, A-6	0	0	100	100	100	95-100	25-35	10-15
	11-18	Silt loam	CL, ML	A-4, A-6	0	0	100	100	100	95-100	25-35	10-20
	18-33	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	100	100	100	95-100	45-55	25-30
	33-51	Silty clay loam	CL, ML	A-6, A-7-6	0	0	100	100	100	95-100	35-45	15-25
	51-89	Silt loam	CL, CL-ML, ML	A-6, A-4	0	0	100	100	100	95-100	25-35	5-15
19D2:												
Sylvan----------	0-4	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	25-35	5-15
	4-32	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	95-100	35-50	20-30
	32-60	Silt loam, silt	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	20-40	5-20
19D3:												
Sylvan----------	0-9	Silty clay loam	CL	A-7-6, A-6	0	0	100	100	100	95-100	35-50	20-30
	9-28	Silty clay loam, silt loam	CL	A-7-6, A-6	0	0	100	100	100	95-100	35-50	20-30
	28-60	Silt loam, silt	CL, CL-ML	A-6, A-4	0	0	100	100	95-100	95-100	20-40	5-20
19F:												
Sylvan----------	0-5	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	25-35	5-15
	5-10	Silt loam	CL, ML	A-6, A-4	0	0	100	100	100	95-100	30-40	7-15
	10-27	Silty clay loam, silt loam	CL	A-7-6, A-6	0	0	100	100	100	95-100	35-50	20-30
	27-80	Silt loam	CL, CL-ML	A-6, A-4	0	0	100	100	95-100	95-100	20-40	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
22D2:												
Westville-------	0-5	Loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-95	55-80	29-37	12-18
	5-60	Clay loam, sandy clay loam	CL	A-6, A-7-6	0	0-4	90-100	80-100	67-96	40-80	35-47	17-27
22D3:												
Westville-------	0-5	Clay loam	CL	A-6, A-7-6	0	0-5	90-100	83-100	70-95	40-85	35-47	16-27
	5-60	Clay loam, sandy clay loam	CL	A-6, A-7-6	0	0-5	90-100	80-100	67-96	40-80	35-47	17-27
43A:												
Ipava-----------	0-20	Silt loam	ML, CL	A-6	0	0	100	100	95-100	90-100	25-40	10-20
	20-40	Silty clay loam, silty clay	CH, CL	A-7	0	0	100	100	95-100	90-100	45-70	25-40
	40-60	Silt loam, silty clay loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	90-100	25-40	5-20
45A:												
Denny-----------	0-9	Silt loam	CL	A-6, A-4	0	0	100	100	95-100	95-100	30-40	8-15
	9-22	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	25-40	5-15
	22-45	Silty clay loam, silty clay	CL, CH	A-7-6, A-6	0	0	100	100	95-100	95-100	35-60	15-35
	45-60	Silt loam, silty clay loam	CL	A-6	0	0	100	100	95-100	95-100	25-40	11-20
49A:												
Watseka---------	0-18	Loamy fine sand	SC-SM, SM	A-2	0	0	100	100	85-90	14-21	15-20	2-7
	18-60	Fine sand, sand, loamy fine sand	SM, SP, SP-SM	A-2, A-3	0	0	90-100	80-100	55-75	1-16	6-16	NP-5
51A:												
Muscatune-------	0-16	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	97-100	95-100	24-37	4-14
	16-22	Silty clay loam, silt loam	CL, ML	A-6	0	0	100	100	97-100	95-100	35-40	14-20
	22-46	Silty clay loam	CL, ML	A-7-6, A-6	0	0	100	100	97-100	95-100	37-46	16-24
	46-60	Silt loam, silty clay loam	CL, ML	A-6, A-4	0	0	100	100	96-100	93-100	24-37	7-18

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
67A:												
Harpster--------	0-18	Silty clay loam	CH, CL	A-7	0	0	100	95-100	90-100	75-100	37-49	17-25
	18-32	Silty clay loam	CH, CL	A-7	0	0	100	95-100	90-100	78-100	37-49	18-28
	32-60	Silt loam, silty clay loam, loam	CH, CL	A-6, A-7	0	0	100	95-100	90-100	73-100	35-47	17-27
68A:												
Sable-----------	0-17	Silty clay loam	CH, CL, MH, ML	A-7-6	0	0	100	100	95-100	95-100	41-65	15-35
	17-23	Silty clay loam	CH, CL, MH, ML	A-7-6	0	0	100	100	95-100	95-100	41-65	15-35
	23-60	Silty clay loam, silt loam	CL, CH	A-7-6	0	0	100	100	95-100	95-100	40-55	20-35
69A:												
Milford---------	0-7	Silty clay loam	CH, CL	A-7	0	0	100	95-100	90-100	70-100	43-53	21-28
	7-24	Silty clay, silty clay loam, clay loam	CH, CL	A-7	0	0	100	95-100	85-100	72-100	46-56	25-33
	24-43	Silty clay, silty clay loam, clay loam	CH, CL	A-7	0	0	100	95-100	85-100	68-100	40-55	21-32
	43-60	Stratified clay to sandy loam, silt loam, silty clay loam	CL, SC	A-6, A-7	0	0	95-100	90-100	76-100	48-100	23-59	8-36
81A:												
Littleton-------	0-9	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	90-100	25-40	7-20
	9-32	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	90-100	25-40	7-20
	32-60	Silt loam	CL, CL-ML	A-4, A-6, A-7	0	0	100	100	95-100	80-100	20-45	5-20
86B:												
Osco------------	0-14	Silt loam	CL, ML	A-6, A-4	0	0	100	100	100	95-100	35-45	7-20
	14-55	Silty clay loam, silt loam	CL	A-6, A-7-6	0	0	100	100	100	95-100	40-50	15-25
	55-60	Silt loam, silty clay loam	CL, ML	A-6, A-4	0	0	100	100	100	95-100	35-45	7-25

Table 18.--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 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
86C2:												
Osco------------	0-9	Silt loam	CL, ML	A-6, A-4	0	0	100	100	95-100	95-100	35-45	10-20
	9-34	Silty clay loam, silt loam	CL	A-7-6, A-6	0	0	100	100	95-100	95-100	40-50	15-25
	34-60	Silt loam, silty clay loam	CL, ML	A-6, A-4	0	0	100	100	95-100	95-100	35-45	15-25
87A:												
Dickinson-------	0-8	Sandy loam	SC-SM, SC, SM	A-4, A-2-4	0	0	100	100	63-76	24-50	17-26	3-11
	8-20	Fine sandy loam, sandy loam	SC, SC-SM, SM	A-4, A-2-4	0	0	100	100	63-87	24-50	17-26	4-11
	20-31	Fine sandy loam, sandy loam	SC-SM, SC, SM	A-4	0	0	100	100	63-87	24-50	17-26	4-12
	31-36	Loamy sand, loamy fine sand, fine sand	SM, SC-SM, SP-SM	A-2-4, A-3	0	0	100	100	55-80	7-25	9-15	NP-5
	36-60	Sand, loamy fine sand, loamy sand	SP-SM, SM	A-2-4, A-3	0	0	100	100	50-80	7-25	9-14	NP-5
87B:												
Dickinson-------	0-9	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0	100	100	63-76	24-50	19-25	2-8
	9-17	Sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4	0	0	100	100	63-87	24-50	19-25	3-9
	17-33	Sandy loam, fine sandy loam	SC, SC-SM	A-4	0	0	100	100	65-87	25-50	17-22	4-9
	33-41	Loamy sand, loamy fine sand, fine sand	SC-SM, SM	A-2-4, A-3	0	0	100	100	58-80	7-25	10-20	NP-5
	41-60	Sand, loamy fine sand, loamy sand	SM, SP-SM	A-2-4, A-3	0	0	100	100	50-80	7-25	6-16	NP-5

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
87B2:												
Dickinson-------	0-8	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0	100	100	63-76	24-50	17-26	3-11
	8-22	Fine sandy loam, sandy loam	SC, SC-SM, SM	A-4	0	0	100	100	63-87	24-50	17-26	4-12
	22-31	Loamy sand, loamy fine sand, fine sand	SC-SM, SM, SP-SM	A-2-4, A-3	0	0	100	100	55-80	7-25	9-15	NP-5
	31-60	Sand, loamy fine sand, loamy sand	SM, SP-SM	A-2-4, A-3	0	0	100	100	50-80	7-25	9-14	NP-5
87C2:												
Dickinson-------	0-11	Sandy loam	SC-SM, SC, SM	A-4, A-2	0	0	100	100	63-76	24-50	17-30	3-11
	11-29	Fine sandy loam, sandy loam	SC-SM, SC, SM	A-4	0	0	100	100	63-87	24-50	17-30	4-12
	29-35	Loamy sand, loamy fine sand, fine sand	SM, SC-SM, SP-SM	A-2-4, A-3	0	0	100	100	55-80	7-25	9-20	NP-5
	35-60	Sand, loamy fine sand, loamy sand	SP-SM, SM	A-2-4, A-3	0	0	100	100	50-80	7-25	9-14	NP-5
88A:												
Sparta----------	0-17	Loamy sand	SM	A-2-4, A-4	0	0	85-100	85-100	50-95	10-50	0-14	NP
	17-31	Loamy sand, fine sand, sand	SM, SP-SM	A-2-4, A-3, A-4	0	0	85-100	85-100	50-95	5-50	0-14	NP
	31-72	Stratified sand to loamy sand	SP-SM, SM, SP	A-2-4, A-3	0	0	85-100	85-100	50-95	4-50	0-14	NP-4
88B:												
Sparta----------	0-14	Loamy sand	SM	A-4, A-2-4	0	0	85-100	85-100	50-95	10-50	0-14	NP
	14-47	Loamy sand, fine sand, sand	SM, SP-SM	A-2-4, A-3, A-4	0	0	85-100	85-100	50-95	5-50	0-14	NP
	47-72	Stratified sand to loamy sand	SM, SP, SP-SM	A-2-4, A-3	0	0	85-100	85-100	50-95	4-50	0-14	NP-4

Table 18.--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 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
88C:												
Sparta----------	0-8	Loamy sand	SM	A-4, A-2-4	0	0	85-100	85-100	50-95	10-50	0-14	NP
	8-17	Loamy sand	SM	A-4, A-2-4	0	0	85-100	85-100	50-95	10-50	0-14	NP
	17-33	Loamy sand, fine sand, sand	SM, SP-SM	A-2-4, A-3, A-4	0	0	85-100	85-100	50-95	5-50	0-14	NP
	33-72	Stratified sand to loamy sand	SM, SP, SP-SM	A-2-4, A-3	0	0	85-100	85-100	50-95	4-50	0-14	NP-4
100A:												
Palms-----------	0-24	Muck	PT	---	---	---	---	---	---	---	---	---
	24-60	Silt loam, fine sandy loam, clay loam	CL, CL-ML	A-4, A-6	0	0	85-100	80-100	70-95	50-90	25-40	5-20
102A:												
La Hogue--------	0-16	Loam	CL, CL-ML, ML	A-6	0	0	100	100	80-100	50-80	20-35	3-15
	16-26	Clay loam, sandy clay loam, loam	CL, SC	A-4, A-6, A-7-6	0	0	100	100	80-100	40-85	25-45	8-22
	26-36	Sandy clay loam, clay loam, sandy loam	SC	A-6	0	0	100	100	85-95	35-65	23-47	8-27
	36-61	Sandy loam, sandy clay loam, loamy sand	SC	A-2-4, A-2	0	0	95-100	80-100	65-90	18-50	12-35	NP-18
	61-65	Stratified silt loam	CL, ML	A-2, A-4	0	0	100	100	96-100	66-100	17-29	4-14
119D2:												
Elco------------	0-6	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	25-40	5-15
	6-28	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	85-100	25-45	10-30
	28-60	Silty clay loam, loam, clay	CL	A-6, A-7	0	0	100	90-100	80-100	60-95	25-50	10-30

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
119D3:												
Elco------------	0-5	Silty clay loam	CL	A-6, A-7	0	0	100	100	100	95-100	30-45	15-30
	5-26	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	85-100	25-45	10-30
	26-60	Clay loam, silty clay loam, loam, clay	CL	A-6, A-7	0	0	100	90-100	80-100	60-95	25-50	10-30
125A:												
Selma-----------	0-23	Loam	CL	A-4, A-6	0	0	100	95-100	80-100	55-85	25-35	7-17
	23-53	Clay loam, sandy loam, loam, silty clay loam	CL, ML, SC	A-6	0	0	100	95-100	80-95	38-85	24-36	11-19
	53-60	Stratified sand to silt loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	90-100	85-100	60-90	30-70	15-35	1-20
148B:												
Proctor---------	0-11	Silt loam	CL	A-6	0	0	100	100	95-100	90-100	25-40	10-20
	11-28	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	90-100	25-50	10-25
	28-33	Loam, clay loam, sandy loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6, A-7	0	0	90-100	85-100	75-100	30-85	20-45	5-25
	33-60	Stratified loam to sandy loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	85-100	80-100	50-100	15-85	20-40	5-20
148C2:												
Proctor---------	0-8	Silt loam	CL	A-6	0	0	100	100	95-100	85-100	25-40	10-20
	8-32	Silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	85-100	85-100	25-50	10-25
	32-48	Clay loam, sandy loam, loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6, A-7	0	0	90-100	85-100	75-100	30-80	20-45	5-25
	48-60	Stratified loam to sandy loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	85-100	80-100	50-100	25-80	20-40	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
149A:												
Brenton---------	0-16	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	85-100	30-40	8-15
	16-35	Silty clay loam, silt loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-100	35-50	10-25
	35-53	Clay loam, loam, silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	55-80	30-45	10-20
	53-60	Stratified loamy sand to silt loam	SC, SC-SM, SM	A-2, A-4	0	0	95-100	85-100	60-95	15-40	0-25	NP-10
152A:												
Drummer---------	0-14	Silty clay loam	CL	A-6, A-7	0	0	100	95-100	95-100	85-95	30-50	15-30
	14-41	Silty clay loam, silt loam, silty clay	CL	A-6, A-7	0	0	100	95-100	95-100	85-95	30-50	15-30
	41-47	Loam, silt loam, clay loam, sandy loam	CL, SC	A-6, A-7	0	0-5	95-100	90-100	75-95	40-85	30-50	15-30
	47-60	Stratified loamy sand to silty clay loam	CL, SC	A-2-4, A-4, A-6	0	0-5	95-100	75-95	75-95	15-80	20-35	7-20
153A:												
Pella-----------	0-23	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	85-95	40-50	15-25
	23-46	Silty clay loam, silty clay, clay loam	CL	A-6, A-7	0	0	100	95-100	90-100	85-95	30-50	15-30
	46-50	Stratified loam to silt loam	CL	A-6, A-7	0-1	0-5	95-100	90-100	85-95	60-90	25-45	10-25
	50-60	Stratified sandy loam to silt loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0-1	0-5	90-100	80-100	50-100	30-85	20-35	7-20
172A:												
Hoopeston-------	0-14	Sandy loam	SC-SM, SC, SM	A-4, A-2-4	0	0	90-100	90-100	70-90	25-45	0-25	NP-10
	14-38	Sandy loam	SC, SC-SM, SM	A-4, A-2-4	0	0	90-100	90-100	60-85	25-50	0-30	NP-10
	38-60	Sand	SM, SC, SC-SM, SP-SM	A-2-4, A-3	0	0	90-100	90-100	50-80	5-35	0-25	NP-10

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
198A:												
Elburn----------	0-13	Silt loam	CL	A-6	0	0	100	100	95-100	90-100	25-40	10-25
	13-44	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	90-100	30-50	15-35
	44-65	Sandy loam, loam, clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	90-100	85-100	60-90	30-85	20-40	5-20
	65-80	Stratified sand to sandy loam, sandy loam, sand, loam	SM, SP-SM	A-2, A-3	0	0	90-100	85-100	60-90	5-60	0-20	NP-5
199A:												
Plano-----------	0-14	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	95-100	90-100	20-30	5-15
	14-49	Silty clay loam, silt loam	CL, ML	A-6	0	0	100	100	95-100	90-100	25-40	10-25
	49-60	Loam, clay loam, sandy loam	CL, ML, SC, SM	A-4, A-6	0	0-1	90-100	85-95	60-90	40-65	30-45	10-25
	60-72	Stratified loamy sand to silt loam	SC, SM, CL, ML, SC-SM, CL-ML	A-2-4, A-4	0	0-5	90-100	70-95	60-90	35-65	20-25	NP-10
199B:												
Plano-----------	0-15	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	20-30	5-15
	15-45	Silty clay loam, silt loam	CL	A-6	0	0	100	100	95-100	90-100	25-40	10-25
	45-55	Clay loam, loam, sandy loam	SM, CL, ML, SC	A-4, A-6	0	0-1	90-100	85-95	60-90	40-65	30-45	10-25
	55-72	Stratified silt loam to loamy sand	CL, ML, SC, SM, SC-SM, CL-ML	A-2-4, A-4	0	0-5	90-100	70-95	60-90	35-65	20-25	NP-10

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
199C2:												
Plano-----------	0-8	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	90-100	20-30	5-15
	8-41	Silty clay loam, silt loam	CL	A-6	0	0	100	100	95-100	90-100	25-40	10-25
	41-53	Clay loam, loam, sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6, A-7	0	0-1	90-100	85-95	60-90	35-75	20-45	5-25
	53-60	Stratified loamy sand to silt loam	CL, ML, SC, SM	A-2, A-4	0	0-5	90-100	70-95	60-90	15-70	0-25	NP-10
200A:												
Orio------------	0-9	Loam	CL, CL-ML	A-4, A-6	0	0	100	100	75-90	50-85	25-40	5-15
	9-18	Sandy loam, loam, loamy sand	ML, SM	A-2-4, A-4	0	0	100	100	75-90	15-60	0-35	2-10
	18-35	Clay loam, sandy clay loam, sandy loam	CL, SC	A-6, A-7	0	0	100	100	80-95	35-75	30-45	10-20
	35-41	Sandy loam, loamy sand, sandy clay loam	SC, SC-SM	A-2-4, A-2-6, A-4, A-6	0	0	100	100	75-90	15-45	25-35	5-15
	41-60	Sand, loamy sand, loamy fine sand	SC, SC-SM, SM, SP-SM	A-2-4, A-3	0	0	100	100	60-90	5-35	20-30	NP-10
201A:												
Gilford---------	0-18	Fine sandy loam	SC, SC-SM, SM	A-2-4, A-4	0	0	95-100	95-100	55-85	25-45	10-25	2-10
	18-32	Sandy loam, fine sandy loam	SC, SC-SM, SM	A-2-4, A-4	0	0	95-100	85-95	55-85	25-40	10-25	3-10
	32-60	Sand, loamy sand, coarse sand	SM, SP, SP-SM	A-1-b, A-2-4, A-3	0	0	95-100	85-95	5-75	0-15	0-10	NP

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments >10 inches	Fragments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
206A:												
Thorp-----------	0-14	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	85-95	20-40	7-19
	14-19	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	85-95	25-35	7-15
	19-43	Silty clay loam, silt loam	CL	A-6, A-7	0	0	95-100	95-100	90-100	85-95	35-50	13-27
	43-50	Silt loam, clay loam, sandy clay loam	CL, SC	A-4, A-6, A-7	0	0	90-100	90-100	90-100	40-90	20-50	8-26
	50-65	Stratified sandy loam to silty clay loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	85-100	85-100	65-85	20-85	0-20	NP-6
212B:												
Thebes----------	0-9	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	25-35	5-15
	9-31	Silty clay loam, silt loam	CL	A-6, A-7-6	0	0	100	100	100	95-100	35-45	15-25
	31-40	Sandy loam, loam, clay loam	CL, CL-ML	A-4	0	0	100	95-100	80-90	45-75	20-30	5-10
	40-80	Stratified loamy sand to sandy loam, loamy sand, sand	SM, SC-SM, SP-SM	A-2-4, A-3	0	0	100	95-100	80-90	2-20	15-20	NP-5
212D3:												
Thebes----------	0-9	Silty clay loam	CL	A-6, A-7	0	0	100	100	100	95-100	35-45	15-25
	9-34	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	100	95-100	35-45	15-25
	34-59	Sandy loam, loam	CL, CL-ML	A-4	0	0	100	95-100	80-90	45-75	20-30	5-10
	59-80	Loamy fine sand, loamy sand, fine sand, stratified sand to loamy sand	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	95-100	80-90	2-20	15-20	NP-5

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
219A:												
Millbrook-------	0-14	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	95-100	85-100	20-35	3-15
	14-35	Silty clay loam, silt loam	CL	A-6, A-7-6	0	0	100	100	95-100	85-100	30-45	10-25
	35-44	Clay loam, loam, sandy loam	CL, SC	A-6, A-7	0-1	0-5	95-100	90-100	70-90	40-80	25-50	10-25
	44-60	Stratified sandy loam to clay loam	CL, ML, SC, SM	A-2, A-4, A-6	0-1	0-5	95-100	90-100	70-95	30-80	15-30	NP-15
250C2:												
Velma-----------	0-13	Silt loam	CL	A-4, A-6	0	0	95-100	95-100	95-100	85-95	25-40	8-20
	13-45	Clay loam, silty clay, silty clay loam, clay	CL, CH	A-6, A-7	0-1	0-5	95-100	85-100	85-98	80-98	35-56	15-29
	45-60	Silty clay loam, clay loam, loam	CL	A-6, A-7	0-1	0-5	95-100	85-100	85-98	80-95	30-45	13-26
250D2:												
Velma-----------	0-7	Silt loam	CL	A-4, A-6	0	0	100	100	90-100	70-90	20-40	8-25
	7-45	Clay loam, loam, silty clay loam	CL	A-6, A-7	0-1	0-5	100	85-100	80-95	55-75	30-50	15-30
	45-60	Loam, clay loam, sandy loam	CL, ML, SC, SM	A-2, A-4, A-6	0-1	0-5	90-100	75-100	60-90	30-80	20-40	3-20
250E2:												
Velma-----------	0-7	Silt loam	CL	A-4, A-6	0	0	100	100	90-100	70-90	20-40	8-25
	7-43	Clay loam, loam, silty clay loam	CL	A-6, A-7	0-1	0-5	100	85-100	80-95	55-75	30-50	15-30
	43-60	Loam, clay loam, sandy loam	CL, ML, SC, SM	A-2, A-4, A-6	0-1	0-5	90-100	75-100	60-90	30-80	20-40	3-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
257A:												
Clarksdale------	0-8	Silt loam	CL	A-6	0	0	100	100	95-100	90-100	25-40	10-20
	8-16	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	90-100	20-35	8-18
	16-47	Silty clay loam, silty clay	CH, CL	A-7	0	0	100	100	95-100	90-100	40-65	25-40
	47-67	Silt loam, silty clay loam	CL	A-6, A-7-6	0	0	100	100	95-100	90-100	25-45	10-25
	67-80	Silt loam	CL	A-6	0	0	95-100	95-100	95-100	90-100	25-40	10-20
259B:												
Assumption------	0-16	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	90-100	25-40	8-20
	16-35	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	90-100	30-50	10-30
	35-80	Clay loam, silty clay loam, clay	CL	A-6, A-7	0	0-5	100	95-100	90-100	70-90	35-50	20-35
259C2:												
Assumption------	0-8	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	90-100	25-40	8-20
	8-24	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	90-100	30-50	10-30
	24-60	Silty clay loam, silt loam	CL	A-6, A-7	0	0-5	100	95-100	90-100	70-90	35-50	10-30
259D2:												
Assumption------	0-7	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	90-100	25-40	8-20
	7-28	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	90-100	30-50	10-30
	28-60	Clay loam, silty clay loam, clay	CL	A-6, A-7	0	0-5	100	95-100	90-100	70-90	35-50	20-35

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
261A:												
Niota-----------	0-9	Silt loam	ML, CL	A-4, A-6	0	0	100	100	95-100	90-100	30-40	5-15
	9-16	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	90-100	25-35	5-15
	16-27	Silty clay, clay, silty clay loam	CH	A-7-5	0	0	100	100	95-100	95-100	52-76	26-42
	27-36	Silty clay loam, silt loam, loam	CL, CH	A-7-6, A-6	0	0	100	100	95-100	95-100	38-52	17-25
	36-49	Silt loam, loam, loamy fine sand	CL, ML, SC, SM	A-4, A-2, A-6, A-7	0	0	100	95-100	60-90	20-90	18-48	NP-20
	49-60	Stratified loamy sand to silt loam	SC, SM, CL, ML, SC-SM, CL-ML	A-2-4, A-4	0	0-5	90-100	70-95	40-80	15-55	20-25	NP-10
262A:												
Denrock---------	0-13	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	90-100	30-40	9-19
	13-36	Silty clay loam, silty clay, clay	CH, MH	A-7	0	0	100	95-100	95-100	90-100	50-75	25-40
	36-40	Clay loam, loam	CL	A-4, A-6	0	0	100	95-100	90-100	60-80	20-40	8-25
	40-60	Sand, stratified sand to loam, sandy loam	SP-SM, SM, ML, CL-ML	A-2, A-3, A-4	0	0	100	90-100	50-75	5-60	0-20	NP-7
274B:												
Seaton----------	0-9	Silt loam	CL, CL-ML, ML	A-4, A-6, A-7	0	0	100	100	95-100	95-100	20-45	2-20
	9-60	Silt loam	CL, CL-ML	A-6, A-4	0	0	100	100	95-100	90-100	25-40	5-20
	60-80	Silt loam, silt	CL, CL-ML	A-6, A-4	0	0	100	100	95-100	90-100	25-40	5-20
274C2:												
Seaton----------	0-7	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	20-35	5-15
	7-47	Silt loam	CL, CL-ML	A-6, A-4	0	0	100	100	95-100	90-100	25-40	5-20
	47-60	Silt loam, silt	CL, CL-ML	A-6, A-4	0	0	100	100	95-100	90-100	25-40	5-20
274D2:												
Seaton----------	0-8	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	20-35	5-15
	8-52	Silt loam	CL, CL-ML	A-6, A-4	0	0	100	100	100	90-100	25-40	5-20
	52-60	Silt loam, silt	CL, CL-ML	A-6, A-4	0	0	100	100	100	90-100	25-40	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
275A:												
Joy	0-15	Silt loam	CL, CL-ML	A-6, A-4	0	0	100	100	95-100	95-100	20-40	5-20
	15-51	Silt loam	CL	A-6	0	0	100	100	95-100	95-100	25-40	10-20
	51-60	Silt loam, loam, very fine sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	90-100	40-100	20-35	5-15
277C2:												
Port Byron	0-9	Silt loam	CL	A-4, A-6	0	0	100	100	100	95-100	25-40	7-18
	9-48	Silt loam	CL	A-4, A-6	0	0	100	100	100	95-100	25-40	7-18
	48-60	Silt loam	CL	A-4, A-6	0	0	100	100	100	90-100	25-40	7-17
279A:												
Rozetta	0-4	Silt loam	CL	A-6, A-4	0	0	100	100	95-100	95-100	24-35	8-15
	4-11	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	20-30	5-15
	11-50	Silty clay loam	CL	A-7-6, A-6	0	0	100	100	95-100	95-100	35-50	15-30
	50-60	Silt loam, silty clay loam	CL	A-6, A-4	0	0	100	100	95-100	85-100	25-40	7-20
279B:												
Rozetta	0-7	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	95-100	24-35	8-15
	7-11	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	20-30	5-15
	11-55	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	95-100	35-50	15-30
	55-60	Silt loam, silty clay loam	CL	A-4, A-6	0	0	100	100	95-100	85-100	25-40	7-20
280B:												
Fayette	0-9	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	25-35	5-15
	9-39	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	100	95-100	35-45	15-25
	39-60	Silt loam	CL	A-6	0	0	100	100	100	95-100	30-40	10-20
280C2:												
Fayette	0-8	Silt loam	CL	A-6, A-7	0	0	100	100	100	95-100	30-45	10-25
	8-64	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	100	95-100	35-45	15-25
	64-80	Silt loam	CL	A-6	0	0	100	100	100	95-100	30-40	10-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
280D2:												
Fayette---------	0-6	Silt loam	CL	A-6, A-7	0	0	100	100	100	95-100	30-45	10-25
	6-48	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	100	95-100	35-45	15-25
	48-60	Silt loam	CL	A-6	0	0	100	100	100	95-100	30-40	10-20
280D3:												
Fayette---------	0-8	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	95-100	35-45	15-25
	8-36	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	95-100	35-45	15-25
	36-60	Silt loam	CL	A-6	0	0	100	100	95-100	95-100	30-40	10-20
430A:												
Raddle----------	0-21	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	90-100	25-40	4-15
	21-80	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	80-100	20-35	4-15
430B:												
Raddle----------	0-13	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	85-100	25-40	4-15
	13-60	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	80-100	20-35	4-15
457A:												
Booker----------	0-18	Silty clay, clay	CH, CL	A-7	0	0	100	100	95-100	95-100	45-75	30-45
	18-44	Clay, silty clay	CH, CL	A-7	0	0	100	100	95-100	95-100	45-75	30-45
	44-60	Silty clay, clay	CH, CL	A-7	0	0	100	100	95-100	95-100	45-75	30-50
465A:												
Montgomery------	0-17	Silty clay	CH, CL	A-7	0	0	100	100	95-100	85-100	45-60	25-35
	17-55	Silty clay loam, silty clay, clay	CH	A-7	0	0	100	100	95-100	90-100	50-65	30-42
	55-60	Stratified clay to silty clay loam	CH, CL	A-7	0	0	100	100	90-100	85-100	40-55	20-32
485A:												
Richwood--------	0-14	Silt loam	CL, ML	A-4, A-6	0	0	100	100	90-100	85-95	25-35	8-13
	14-48	Silt loam, silty clay loam	CL	A-4, A-6	0	0	100	100	90-100	85-95	25-40	7-20
	48-57	Stratified silt loam to loamy sand	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	85-95	35-75	20-30	4-11
	57-60	Fine sand, sand	SP-SM, SM	A-2, A-3	0	0	100	100	50-80	5-35	0-14	NP

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
485B:												
Richwood--------	0-18	Silt loam	CL, ML	A-4, A-6	0	0	100	100	90-100	85-95	25-35	8-13
	18-46	Silt loam, silty clay loam	CL	A-4, A-6	0	0	100	100	90-100	85-95	25-40	7-20
	46-60	Stratified silt loam to loamy sand	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	85-95	35-75	20-30	4-11
	60-79	Fine sand, sand	SP-SM, SM	A-2, A-3	0	0	100	100	50-80	5-35	0-14	NP
487A:												
Joyce-----------	0-20	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	20-35	5-15
	20-44	Silt loam	CL	A-6	0	0	100	100	100	95-100	25-40	10-20
	44-47	Sandy loam, loam	CL, ML, SC, SM	A-2, A-4, A-6	0	0	100	100	70-100	20-80	15-40	NP-15
	47-60	Loamy sand, sand	SC-SM, SM, SW-SM	A-2, A-3	0	0	100	95-100	80-90	5-20	0-20	NP-5
488A:												
Hooppole--------	0-17	Loam	CL	A-4, A-6	0	0	100	95-100	80-100	55-85	25-35	7-17
	17-44	Clay loam, loam, silt loam	CL	A-6, A-7	0	0	95-100	90-100	85-95	65-85	30-45	10-20
	44-60	Sand, loamy sand	SM, SP-SM	A-2, A-3	0	0	95-100	90-100	50-75	5-25	---	NP
546B:												
Keltner---------	0-14	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	90-100	30-40	8-15
	14-38	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	90-100	35-45	15-25
	38-40	Clay, silty clay, silty clay loam	CH, CL	A-6, A-7	0-1	0-5	95-100	85-100	85-100	75-95	30-55	15-35
	40-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
546C2:												
Keltner---------	0-11	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	90-100	30-40	8-15
	11-34	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	90-100	35-45	15-25
	34-43	Clay, silty clay, silty clay loam	CH, CL	A-6, A-7	0-2	0-5	95-100	85-100	85-100	75-95	30-55	15-35
	43-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
549D2:												
Marseilles------	0-5	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	85-100	25-40	5-15
	5-27	Clay loam, silty clay, silty clay loam	CH, CL	A-7	0-1	0-5	95-100	90-100	85-100	80-95	40-60	15-30
	27-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
549F:												
Marseilles------	0-10	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	85-100	25-40	5-15
	10-35	Silty clay loam, silty clay	CH, CL	A-7	0-1	0-5	95-100	90-100	85-100	80-95	40-60	15-30
	35-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
549F2:												
Marseilles------	0-5	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	85-100	25-40	5-15
	5-12	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	85-100	25-40	5-15
	12-37	Silty clay loam, silty clay, clay loam	CH, CL	A-7	0-1	0-5	95-100	90-100	85-100	80-95	40-60	15-30
	37-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
564A:												
Waukegan--------	0-17	Silt loam	ML	A-4	0	0	95-100	95-100	95-100	85-95	25-40	3-10
	17-30	Silt loam, loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	95-100	85-95	25-40	5-15
	35-60	Sand, fine sand	SP-SM, SP, SM	A-3, A-2	0	0	85-100	85-100	50-75	2-30	0-9	NP
564B:												
Waukegan--------	0-13	Silt loam	ML	A-4	0	0	95-100	95-100	92-100	85-95	25-40	3-10
	13-35	Silt loam, loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	95-99	85-95	25-40	5-15
	35-60	Sand, fine sand	SP-SM, SP, SM	A-3, A-2	0	0	85-100	85-100	50-75	2-30	0-9	NP
564B2:												
Waukegan--------	0-9	Silt loam	ML	A-4	0	0	95-100	95-100	95-100	85-95	25-40	3-10
	9-23	Silt loam, loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	95-100	85-95	25-40	5-15
	23-60	Sand, fine sand	SP-SM, SP, SM	A-3, A-2	0	0	85-100	85-100	50-75	2-30	0-9	NP

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
565A:												
Tell------------	0-14	Silt loam	CL	A-4	0	0	100	100	92-98	69-88	23-26	8-10
	14-30	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-99	85-96	22-38	8-21
	30-34	Sandy loam, loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	100	90-100	75-92	29-62	17-33	4-17
	34-60	Loamy sand, sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	100	90-100	71-86	13-33	8-19	NP-7
565B:												
Tell------------	0-7	Silt loam	CL	A-4	0	0	100	100	90-98	69-88	23-26	8-10
	7-28	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-99	85-96	22-38	8-21
	28-35	Sandy loam, loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	100	90-100	75-92	29-62	17-33	4-17
	35-60	Loamy sand, sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	100	90-100	71-86	13-33	8-19	NP-7
565C2:												
Tell------------	0-6	Silt loam	CL	A-4	0	0	100	100	90-98	69-88	23-26	8-10
	6-29	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-99	85-96	22-38	8-21
	29-33	Sandy loam, loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	100	90-100	75-92	29-62	17-33	4-17
	33-60	Loamy sand, sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	100	90-100	71-86	13-33	8-19	NP-7
567D2:												
Elkhart---------	0-10	Silt loam	CL	A-6, A-4	0	0	100	100	95-100	95-100	25-35	8-15
	10-30	Silty clay loam, silt loam	CL	A-7-6, A-6	0	0	100	100	95-100	95-100	35-50	18-30
	30-60	Silt loam, silt	CL	A-6, A-4	0	0	100	100	95-100	90-100	20-37	8-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
572A:												
Loran-----------	0-14	Silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	6-15
	14-39	Silty clay loam, silt loam, loam	CL	A-6, A-7	0	0	100	95-100	95-100	80-100	35-50	15-25
	39-53	Silty clay, clay, shaly clay	CL	A-6, A-7	0	0-5	95-100	95-100	90-100	80-100	30-50	15-35
	53-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
572B:												
Loran-----------	0-12	Silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	6-15
	12-43	Silty clay loam, silt loam, loam	CL	A-6, A-7	0	0	100	95-100	95-100	80-100	35-50	15-25
	43-51	Channery clay, channery silty clay, clay	CL	A-6, A-7	0	0-5	95-100	95-100	90-100	80-100	30-50	15-35
	51-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
572C2:												
Loran-----------	0-9	Silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	6-15
	9-41	Silty clay loam, silt loam, loam	CL	A-6, A-7	0	0	100	95-100	95-100	80-100	35-50	15-25
	41-60	Shaly clay, shaly silty clay, clay	CL	A-6, A-7	0	0-5	95-100	95-100	90-100	80-100	30-50	15-35
618C2:												
Senachwine------	0-6	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	90-100	80-95	60-85	20-30	5-15
	6-27	Clay loam, silty clay loam	CL	A-6, A-7-6	0	0	90-98	85-98	85-95	55-85	35-45	15-20
	27-32	Loam, fine sandy loam	CL, CL-ML	A-6, A-4	0-1	0-3	90-98	85-98	75-95	50-75	30-35	10-15
	32-60	Loam, fine sandy loam	CL, CL-ML	A-4, A-6	0-1	0-3	90-98	85-98	75-95	50-75	25-35	5-15

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
618D2:												
Senachwine------	0-6	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	90-100	80-95	60-85	20-30	5-15
	6-28	Clay loam, silty clay loam	CL	A-6, A-7-6	0	0	90-98	85-98	85-95	55-85	35-45	15-20
	28-34	Loam, fine sandy loam	CL, CL-ML	A-4, A-6	0-1	0-3	90-98	85-98	75-95	50-75	30-35	10-15
	34-60	Loam, fine sandy loam	CL, CL-ML	A-4, A-6	0-1	0-3	90-98	85-98	75-95	50-75	25-35	5-15
670A:												
Aholt-----------	0-51	Clay, silty clay	CH	A-7-6	0	0	100	100	95-100	90-100	60-80	35-55
	51-60	Silty clay, clay, silty clay loam	CH, CL	A-7-6	0	0	100	100	85-100	85-100	45-75	30-50
671A:												
Biggsville------	0-13	Silt loam	CL, ML	A-6, A-4	0	0	100	100	100	95-100	25-40	7-18
	13-53	Silt loam	CL	A-6, A-4	0	0	100	100	100	95-100	25-40	7-18
	53-80	Silt loam	CL	A-6, A-4	0	0	100	100	100	90-100	25-40	7-17
671B:												
Biggsville------	0-13	Silt loam	CL, ML	A-6, A-4	0	0	100	100	100	95-100	25-40	7-18
	13-53	Silt loam	CL	A-6, A-4	0	0	100	100	100	95-100	25-40	7-18
	53-80	Silt loam	CL	A-6, A-4	0	0	100	100	100	90-100	25-40	7-17
672A:												
Cresent---------	0-15	Loam	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	70-90	25-35	5-15
	15-46	Loam, clay loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	60-100	35-85	20-35	5-20
	46-60	Sand, loamy sand	SC, SC-SM, SM, SP-SM	A-2-4, A-3	0	0	100	100	50-75	5-30	15-25	NP-10
672B:												
Cresent---------	0-7	Loam	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	70-90	25-35	5-15
	7-11	Silt loam, loam	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	70-90	15-35	4-15
	11-41	Loam, clay loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	60-100	35-85	20-35	5-20
	41-60	Loamy sand, sand	SC, SC-SM, SM, SP-SM	A-2-4, A-3	0	0	100	100	50-75	5-30	5-25	NP-10

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
672D3:												
Cresent---------	0-7	Loam	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	70-90	25-35	5-15
	7-46	Loam, clay loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	60-100	35-85	20-35	5-20
	46-60	Loamy sand, sand	SC, SC-SM, SM, SP-SM	A-2-4, A-3	0	0	100	100	50-75	5-30	15-25	NP-10
675A:												
Greenbush-------	0-9	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	25-35	5-15
	9-16	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	25-35	5-15
	16-46	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	100	95-100	35-45	15-25
	46-60	Silt loam	CL	A-6	0	0	100	100	100	95-100	30-40	11-20
675B:												
Greenbush-------	0-14	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	25-35	5-15
	14-60	Silty clay loam	CL	A-6, A-7	0	0	100	100	100	95-100	35-45	15-25
	60-80	Silt loam	CL	A-6	0	0	100	100	100	95-100	30-40	11-20
675C2:												
Greenbush-------	0-6	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	25-35	5-15
	6-46	Silty clay loam	CL	A-6, A-7	0	0	100	100	100	95-100	35-45	15-25
	46-60	Silt loam	CL	A-6	0	0	100	100	100	95-100	30-40	11-20
684B:												
Broadwell-------	0-15	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	90-100	25-45	5-20
	15-50	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	90-100	30-45	10-25
	50-55	Loamy fine sand, clay loam, fine sandy loam, loam	SC, SC-SM	A-4	0	0	100	95-100	80-90	35-50	20-30	5-10
	55-80	Loamy sand, fine sand, sand	SC-SM, SM, SP, SP-SM	A-2, A-3	0	0	100	100	75-95	4-35	0-20	NP-5

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
684C2:												
Broadwell-------	0-10	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	100	95-100	25-40	5-15
	10-48	Silt loam, silty clay loam	CL	A-6, A-7	0	0	100	100	100	95-100	35-50	15-25
	48-59	Sandy loam, loam	SC, SC-SM	A-4	0	0	100	95-100	80-90	35-50	20-30	5-10
	59-70	Loamy fine sand, loamy sand, fine sand	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	95-100	80-90	2-20	0-20	NP-5
686A:												
Parkway---------	0-16	Silt loam	CL, CL-ML, ML	A-4, A-6, A-7	0	0	100	100	95-100	85-100	25-45	5-20
	16-56	Silty clay loam, silt loam	CL, ML	A-6, A-7	0	0	100	90-100	90-100	80-100	30-50	15-30
	56-60	Loam, clay loam, silty clay loam	CL	A-6, A-7	0	0-3	90-100	90-100	85-100	60-100	25-45	10-20
686B:												
Parkway---------	0-18	Silt loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-100	30-50	11-20
	18-49	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	90-100	80-100	35-50	20-30
	49-60	Loam, clay loam, silty clay loam	CL	A-6, A-7	0	0-3	90-100	90-100	85-100	60-100	25-45	11-20
686B2:												
Parkway---------	0-9	Silt loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-100	30-50	11-20
	9-40	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	90-100	80-100	35-50	20-30
	40-60	Loam, clay loam, silty clay loam	CL	A-6, A-7	0	0-3	90-100	90-100	85-100	60-100	25-45	11-20
689B:												
Coloma----------	0-10	Sand	SP-SM, SP, SM	A-3, A-2	0	0	85-100	85-100	50-80	2-15	0-14	NP
	10-27	Sand, loamy sand	SP-SM, SP, SM	A-3, A-2	0	0	85-100	85-100	50-75	2-30	0-14	NP
	27-60	Stratified sand to loamy sand	SM, SP, SP-SM	A-2-4, A-3, A-4	0	0	85-100	85-100	50-100	2-40	0-14	NP

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
689D:												
Coloma----------	0-12	Sand	SP-SM, SP, SM	A-3, A-2	0	0	85-100	85-100	50-75	2-15	0-14	NP
	12-25	Sand, loamy sand	SP-SM, SP, SM	A-3, A-2	0	0	85-100	85-100	50-75	2-30	0-14	NP
	25-60	Stratified sand to loamy sand to sandy loam	SM, SP, SP-SM	A-2-4, A-3, A-4	0	0	85-100	85-100	50-100	2-40	0-14	NP
705A:												
Buckhart--------	0-20	Silt loam, silty clay loam	CL, ML	A-6, A-7	0	0	100	100	100	95-100	35-45	10-20
	20-58	Silty clay loam, silt loam	CL	A-7	0	0	100	100	100	95-100	40-50	15-25
	58-60	Silty clay loam, silt loam	CL	A-6	0	0	100	100	100	95-100	30-40	11-20
741B:												
Oakville--------	0-6	Fine sand	SM, SP-SM	A-2	0	0	100	95-100	70-80	2-12	8-15	NP-1
	6-36	Fine sand, loamy fine sand	SM, SP-SM	A-2	0	0	100	95-100	74-85	2-15	8-15	NP
	36-60	Fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	95-100	73-83	0-13	8-15	NP-2
741D:												
Oakville--------	0-5	Fine sand	SM, SP-SM	A-2	0	0	100	95-100	70-80	2-12	8-15	NP-1
	5-36	Fine sand, loamy fine sand	SM, SP-SM	A-2	0	0	100	95-100	74-85	2-15	8-15	NP
	36-60	Fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	95-100	73-83	0-13	8-15	NP-2
741F:												
Oakville--------	0-3	Fine sand	SP-SM, SM	A-2-4	0	0	100	95-100	70-80	2-12	8-15	NP-1
	3-24	Fine sand, loamy fine sand	SP-SM, SM	A-2-4	0	0	100	95-100	74-85	2-15	8-15	NP
	24-60	Fine sand, sand	SP-SM, SM	A-3, A-2-4	0	0	100	95-100	73-83	0-13	8-15	NP-2

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
764A:												
Coyne-----------	0-23	Fine sandy loam	SC, SC-SM, SM	A-2-4, A-4, A-6	0	0	100	95-100	60-70	20-50	20-35	3-15
	23-42	Fine sandy loam, loam	SC, SC-SM, SM	A-2-4, A-4, A-6	0	0	100	95-100	60-70	20-50	20-35	3-15
	42-60	Silty clay loam, loam, silt loam	CL	A-6, A-7	0	0	100	100	85-100	80-95	30-45	11-25
764B:												
Coyne-----------	0-7	Loam	CL-ML, CL	A-4, A-6	0	0	100	100	99-100	60-80	15-35	3-15
	7-20	Very fine sandy loam, loam	CL-ML, CL	A-4, A-6	0	0	100	100	99-100	55-80	12-35	3-15
	20-42	Very fine sandy loam, loam	CL-ML, CL	A-4, A-6	0	0	100	100	85-100	55-80	12-35	3-18
	42-55	Silty clay loam, loam, silt loam	CL	A-4, A-6	0	0	100	100	85-100	80-95	20-45	5-25
	55-60	Silty clay loam, silty clay, silt loam	CH, CL	A-7-6, A-6	0	0	100	100	95-100	90-100	40-65	25-40
767A:												
Prophetstown----	0-16	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	85-100	20-35	5-20
	16-40	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	85-100	25-40	5-20
	40-52	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	95-100	95-100	80-100	20-40	5-20
	52-60	Stratified silt loam to sand	CL, CL-ML, ML	A-4	0	0	100	90-100	90-100	50-80	0-25	NP-10
777A:												
Adrian----------	0-22	Muck	PT	A-8	---	---	---	---	---	---	---	---
	22-60	Gravelly sand, loamy sand, fine sand, sand	SM, SP	A-1, A-2, A-3	0	0	80-100	60-100	35-75	0-30	0-14	NP
800C:												
Psamments-------	0-60	Sand, loamy sand	SP-SM, SP, SM	A-3, A-2	0	0	85-100	85-100	50-75	2-30	0-14	NP
	60-80	Sand, fine sand	SP-SM, SP, SM	A-3, A-2	0	0	85-100	85-100	50-75	2-30	0-9	NP

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
802B:												
Orthents	0-6	Loam	CL	A-6	0-1	0-5	95-100	90-100	85-95	60-90	20-40	10-20
	6-60	Loam, silt loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	85-95	60-90	20-40	10-20
871B:												
Lenzburg	0-2	Silty clay loam	CL	A-6, A-7	0-1	2-10	90-100	75-100	65-95	55-85	35-47	15-25
	2-17	Silty clay loam, channery clay loam, clay loam	CH, CL	A-6, A-7	0-2	2-10	70-95	60-90	55-90	50-90	30-55	15-30
	17-60	Channery loam, channery clay loam, silty clay loam, silt loam	CL, CH	A-6, A-7	0-5	2-10	80-95	60-95	50-90	35-85	29-55	13-27
871G:												
Lenzburg	0-3	Silty clay loam	CL	A-6, A-7	0-1	2-10	80-95	60-90	50-85	40-80	37-47	18-27
	3-24	Silty clay loam, silt loam, channery silty clay loam	CL	A-6, A-7	0-1	3-9	75-95	55-95	50-90	45-85	30-45	15-30
	24-60	Channery clay loam, clay loam, silty clay loam	CL, CH	A-6, A-7	0-3	2-14	75-95	40-85	35-82	25-80	30-55	13-27
911G:												
Timula	0-10	Silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	10-22	Silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	22-60	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
Hickory	0-7	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0-5	95-100	90-100	75-100	55-100	20-35	3-15
	7-46	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	85-100	70-100	65-95	50-85	30-50	15-30
	46-60	Clay loam, loam, gravelly clay loam	CL, CL-ML, SC-SM, SC	A-4, A-6, A-2	0-1	0-5	85-100	70-95	45-95	25-75	20-40	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
913D:												
Marseilles------	0-9	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	85-100	25-40	5-15
	9-28	Silty clay loam, silty clay, clay loam	CH, CL	A-7	0-1	0-5	95-100	90-100	85-100	80-95	40-60	15-30
	28-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Hickory---------	0-6	Silt loam	CL	A-4, A-6	0	0-5	95-100	90-100	90-100	75-95	20-35	8-15
	6-51	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	95-100	75-100	70-95	65-80	30-50	15-30
	51-60	Sandy loam, loam, clay loam	CL, CL-ML	A-4, A-6	0-1	0-5	85-100	75-95	70-95	60-80	20-40	5-20
913D3:												
Marseilles------	0-4	Silty clay loam	ML	A-6, A-7	0-1	0-5	95-100	95-100	90-100	85-100	35-50	10-20
	4-24	Silty clay loam, silty clay, clay loam	CH, CL	A-7	0-1	0-5	95-100	90-100	85-100	80-95	40-60	15-30
	24-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Hickory---------	0-6	Clay loam	CL	A-6, A-7	0	0-5	95-100	90-100	80-95	70-85	30-50	15-30
	6-46	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	95-100	75-100	70-95	65-80	30-50	15-30
	46-60	Sandy loam, loam, gravelly clay loam	CL, CL-ML	A-4, A-6	0-1	0-5	85-100	75-95	70-95	60-80	20-40	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
913F:												
Marseilles------	0-12	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	90-100	25-40	5-15
	12-18	Silty clay loam, silt loam	CL	A-7-6, A-6	0	0	100	100	90-100	85-100	35-50	15-25
	18-34	Clay loam, silty clay, silty clay loam	CL, CH	A-7-6	0-5	0-5	95-100	90-100	85-100	80-100	40-60	15-30
	34-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Hickory---------	0-8	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0-5	95-100	90-100	75-100	55-100	20-35	3-15
	8-57	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	85-100	70-100	65-95	50-85	30-50	15-30
	57-60	Clay loam, loam, gravelly clay loam	CL, CL-ML, SC, SC-SM	A-6, A-4, A-2	0-1	0-5	85-100	70-95	45-95	25-75	20-40	5-20
913F2:												
Marseilles------	0-8	Silt loam	ML	A-6, A-7	0-1	0-5	95-100	95-100	90-100	85-100	35-50	10-20
	8-27	Silty clay loam, silty clay, clay loam	CH, CL	A-7	0-1	0-5	95-100	90-100	85-100	80-95	40-60	15-30
	27-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Hickory---------	0-9	Loam, silt loam	CL	A-4, A-6	0	0-5	95-100	90-100	90-100	75-95	20-35	8-15
	9-60	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	95-100	75-100	70-95	65-80	30-50	15-30
917B:												
Oakville--------	0-5	Fine sand	SM, SP-SM	A-2	0	0	100	95-100	70-80	2-12	8-15	NP-1
	5-30	Fine sand, loamy fine sand	SM, SP-SM	A-2	0	0	100	95-100	74-85	2-15	8-15	NP
	30-60	Fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	95-100	73-83	0-13	8-15	NP-2

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
917B:												
Tell------------	0-5	Silt loam	CL	A-4	0	0	100	100	90-98	69-88	23-26	8-10
	5-24	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-99	85-96	22-38	8-21
	24-27	Sandy loam, loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	100	90-100	75-92	29-62	17-33	4-17
	27-60	Sand, loamy sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	100	90-100	71-86	13-33	8-19	NP-7
917C2:												
Oakville---------	0-7	Fine sand	SP-SM, SM	A-2-4	0	0	100	95-100	70-80	2-12	8-15	NP-1
	7-51	Fine sand, loamy fine sand	SP-SM, SM	A-2-4	0	0	100	95-100	74-85	2-15	8-15	NP
	51-60	Fine sand, sand	SP-SM, SM	A-3, A-2	0	0	100	95-100	73-83	0-13	8-15	NP-2
Tell------------	0-7	Silt loam	CL	A-4	0	0	100	100	90-98	69-88	23-26	8-10
	7-23	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-99	85-96	22-38	8-21
	23-27	Sandy loam, loam, sandy clay loam	SC, SC-SM, CL, CL-ML	A-4, A-2-4, A-6	0	0	100	90-100	75-92	29-62	17-33	4-17
	27-60	Loamy sand, sand	SP-SM, SP, SM	A-2-4, A-1, A-3	0	0	100	90-100	71-86	13-33	8-19	NP-7
917D:												
Oakville---------	0-6	Fine sand	SM, SP-SM	A-2	0	0	100	95-100	70-80	2-12	8-15	NP-1
	6-36	Fine sand, loamy fine sand	SM, SP-SM	A-2	0	0	100	95-100	74-85	2-15	8-15	NP
	36-60	Fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	95-100	73-83	0-13	8-15	NP-2
Tell------------	0-5	Silt loam	CL	A-4	0	0	100	100	90-98	69-88	23-26	8-10
	5-31	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-99	85-96	22-38	8-21
	31-38	Sandy loam, loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	100	90-100	75-92	29-62	17-33	4-17
	38-60	Sand, loamy sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	100	90-100	71-86	13-33	8-19	NP-7

Table 18.--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 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
917D2:												
Oakville--------	0-9	Fine sand	SP-SM, SM	A-2-4	0	0	100	95-100	70-80	2-12	8-15	NP-1
	9-36	Fine sand, loamy fine sand	SP-SM, SM	A-2-4	0	0	100	95-100	74-85	2-15	8-15	NP
	36-60	Fine sand, sand	SP-SM, SM	A-3, A-2	0	0	100	95-100	73-83	0-13	8-15	NP-2
Tell------------	0-8	Silt loam	CL	A-4	0	0	100	100	90-98	69-88	23-26	8-10
	8-28	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-99	85-96	22-38	8-21
	28-32	Sandy loam, loam, sandy clay loam	SC, SC-SM, CL, CL-ML	A-4, A-2-4, A-6	0	0	100	90-100	75-92	29-62	17-33	4-17
	32-60	Sand, loamy sand	SP-SM, SP, SM	A-2-4, A-1, A-3	0	0	100	90-100	71-86	13-33	8-19	NP-7
918D3:												
Marseilles------	0-4	Silty clay loam	ML	A-6, A-7	0-1	0-5	95-100	95-100	90-100	85-100	35-50	10-20
	4-39	Silty clay loam, silty clay, clay loam	CH, CL	A-7	0-1	0-5	95-100	90-100	85-100	80-95	40-60	15-30
	39-60	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Atlas-----------	0-3	Silty clay loam	CH, CL	A-7	0	0	100	100	95-100	75-100	40-60	25-40
	3-14	Silty clay, silty clay loam, clay loam	CH	A-7	0	0	100	95-100	95-100	75-95	50-70	30-45
	14-44	Silty clay, clay, clay loam	CH	A-7	0	0	100	95-100	95-100	75-95	50-70	30-45
	44-60	Clay loam, clay, silty clay	CH, CL	A-6, A-7	0	0	95-100	90-100	90-100	65-95	35-55	20-30
943D3:												
Seaton----------	0-4	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	20-35	5-15
	4-39	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	90-100	25-40	5-20
	39-60	Silt loam, silt	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	90-100	25-40	5-20
Timula----------	0-23	Silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	23-60	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
943G:												
Seaton----------	0-9	Silt loam	CL, CL-ML, ML	A-4, A-6, A-7	0	0	100	100	95-100	95-100	20-45	2-20
	9-60	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	90-100	25-40	5-20
Timula----------	0-28	Silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	28-60	Silt loam, silt	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
946D2:												
Hickory---------	0-6	Silt loam	CL	A-4, A-6	0	0-5	95-100	90-100	90-100	75-95	20-35	8-15
	6-60	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	95-100	75-100	70-95	65-80	30-50	15-30
Atlas-----------	0-5	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	75-95	25-35	5-15
	5-16	Silty clay loam, silty clay, clay loam	CH	A-7	0	0	100	95-100	95-100	75-95	50-70	30-45
	16-48	Silty clay, silty clay loam, clay loam	CH	A-7	0	0	100	95-100	95-100	75-95	50-70	30-45
	48-60	Clay loam, clay, loam	CH, CL	A-6, A-7	0	0	95-100	90-100	90-100	65-95	35-55	20-30
946D3:												
Hickory---------	0-7	Clay loam	CL	A-6, A-7	0	0-5	95-100	90-100	80-100	65-80	30-50	15-30
	7-42	Clay loam, silty clay loam, gravelly clay loam	CL	A-6, A-7	0-1	0-5	85-100	70-100	65-95	50-85	30-50	15-30
	42-60	Clay loam, loam, gravelly clay loam	CL, CL-ML	A-6, A-4, A-2	0-1	0-5	85-100	75-95	45-95	25-75	20-40	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
946D3:												
Atlas-----------	0-6	Silty clay loam	CH, CL	A-7-6	0	0	100	100	95-100	75-100	45-65	25-40
	6-12	Silty clay loam, silty clay, clay loam	CH	A-7-6	0	0	100	95-100	95-100	75-95	50-70	30-45
	12-55	Silty clay loam, silty clay, clay loam	CH	A-7-6	0	0	100	95-100	95-100	75-95	50-70	30-45
	55-60	Clay loam, clay, loam	CL, CH	A-6, A-7-6	0	0	95-100	90-100	80-100	60-95	35-55	20-30
957D3:												
Elco------------	0-7	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	85-100	30-45	15-30
	7-27	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	95-100	85-100	25-45	10-30
	27-39	Silty clay loam, clay loam, silt loam	CL	A-6, A-7	0	0	100	90-100	85-95	75-95	25-45	10-30
	39-60	Clay loam, silty clay loam, loam, silty clay	CL	A-6, A-7	0	0	100	90-100	80-100	60-95	25-50	10-30
Atlas-----------	0-5	Silty clay loam	CH, CL	A-7	0	0	100	100	95-100	75-95	45-65	30-40
	5-9	Silty clay loam, silty clay, clay loam	CH	A-7	0	0	100	95-100	95-100	75-95	50-70	30-45
	9-39	Silty clay loam, silty clay, clay loam	CH	A-7	0	0	100	95-100	95-100	75-95	50-70	30-45
	39-60	Silty clay loam, clay, clay loam	CH	A-7	0	0	100	90-100	80-100	60-95	50-70	30-45
962D3:												
Sylvan----------	0-8	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	95-100	35-50	20-30
	8-31	Silty clay loam, silt loam	CL	A-7, A-6	0	0	100	100	95-100	95-100	35-50	20-30
	31-60	Silt loam, silt	CL, CL-ML	A-4, A-6	0	0	100	100	95-100	95-100	20-40	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
962D3:												
Bold------------	0-8	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	95-100	90-100	20-35	3-15
	8-60	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	95-100	90-100	20-35	3-15
3070A:												
Beaucoup--------	0-19	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	85-100	30-45	15-25
	19-42	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	85-100	30-45	15-30
	42-65	Stratified very fine sandy loam to silty clay loam	CL, CL-ML	A-7, A-4, A-6	0	0	100	100	90-100	75-95	30-45	10-25
3074A:												
Radford---------	0-12	Silt loam	CL, ML	A-6, A-4	0	0	100	100	95-100	85-100	28-36	5-15
	12-33	Silt loam	CL, ML	A-6, A-4	0	0	100	100	95-100	85-100	28-36	5-15
	33-60	Silt loam, silty clay loam, clay loam	CL	A-6, A-7	0	0	100	100	85-100	70-95	35-50	15-25
3107+:												
Sawmill---------	0-11	Silt loam	CL	A-6	0	0	100	100	95-100	85-100	25-40	10-20
	11-36	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	85-100	30-50	15-30
	36-53	Silty clay loam, clay loam, loam	CL	A-4, A-6, A-7	0	0	100	100	95-100	70-95	25-50	8-25
	53-60	Silty clay loam, clay loam, silt loam	CL	A-4, A-6, A-7	0	0	100	100	85-100	70-95	20-50	8-30
3107A:												
Sawmill---------	0-26	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	85-100	30-50	15-30
	26-54	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	85-100	30-50	15-30
	54-60	Silty clay loam, clay loam, loam	CL	A-6, A-4, A-7	0	0	100	100	85-100	70-95	25-50	8-25
3284A:												
Tice------------	0-14	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	80-95	30-45	10-20
	14-39	Silty clay loam, silt loam	CH, CL	A-7	0	0	100	100	95-100	85-95	40-55	15-30
	39-72	Stratified silt loam to loam	CL, CL-ML	A-4, A-6, A-7	0	0	100	100	60-95	55-80	25-45	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
3302A:												
Ambraw----------	0-8	Silty clay loam	CL	A-6, A-7	0	0	100	100	85-95	85-95	30-45	10-20
	8-39	Clay loam, clay, loam	CH, CL	A-6, A-7	0	0	100	100	80-90	60-80	35-55	15-30
	39-50	Clay loam, sandy clay loam	CL, SC	A-6, A-7	0	0	100	90-100	85-95	40-80	30-50	10-25
	50-60	Stratified clay loam to sandy clay loam	CL, ML, SC, SM	A-4, A-6	0	0	100	90-100	80-90	40-80	20-40	NP-17
3400A:												
Calco-----------	0-34	Silty clay loam, silty clay	CH, CL	A-7-6	0	0	100	100	95-100	85-100	40-60	15-30
	34-45	Silty clay loam	CH, CL	A-7-6	0	0	100	100	95-100	85-100	40-60	15-30
	45-60	Silty clay loam, loam, clay loam, stratified silt loam to loam	CL	A-6, A-7-6	0	0	100	100	90-100	80-100	30-45	10-20
3415A:												
Orion-----------	0-7	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-100	80-100	25-35	4-12
	7-22	Stratified very fine sand to silt loam	CL-ML, CL	A-4	0	0	100	100	90-100	70-80	20-30	4-10
	22-60	Silt loam, silty clay loam	CL, CL-ML	A-6, A-4	0	0	100	100	85-100	85-100	20-40	4-18
	60-80	Stratified sand to silt loam	CL-ML, CL	A-4	0	0	80-100	80-100	80-100	80-100	20-30	4-10
7100A:												
Palms-----------	0-28	Muck	PT	---	---	---	---	---	---	---	---	---
	28-60	Clay loam, silty clay loam, fine sandy loam	CL, CL-ML	A-4, A-6	0	0	85-100	80-100	70-95	50-90	25-40	5-20

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
7302A:												
Ambraw----------	0-20	Clay loam	CL	A-6, A-7	0	0	100	100	85-95	55-80	30-45	10-20
	20-36	Clay loam, clay, loam	CH, CL	A-6, A-7	0	0	100	100	80-90	60-80	35-55	15-30
	36-45	Clay loam, sandy clay loam	CL, SC	A-6, A-7	0	0	100	90-100	85-95	40-80	30-50	10-25
	45-60	Stratified clay loam to sandy clay loam	CL, ML, SC, SM	A-4, A-6	0	0	100	90-100	80-90	40-80	20-40	NP-17
7404A:												
Titus-----------	0-22	Silty clay loam	CH, CL	A-7	0	0	100	100	95-100	90-100	40-55	20-30
	22-52	Silty clay loam, silty clay	CH, CL	A-7	0	0	100	100	95-100	90-100	40-55	20-30
	52-60	Silty clay loam, silt loam, loam	CL	A-6	0	0	100	90-100	70-90	55-85	20-40	10-25
7654A:												
Moline----------	0-14	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	100	100	97-100	91-100	46-76	23-45
	14-33	Clay, silty clay	CH	A-7-6	0	0	100	100	94-100	83-96	57-77	33-49
	33-75	Clay, silty clay	CH, CL	A-7-6	0	0	100	100	94-100	83-96	46-76	25-48
	75-98	Silt loam, silty clay loam	CL	A-6, A-7-6	0	0	100	100	94-100	83-100	27-47	11-27
7682A:												
Medway----------	0-19	Loam	CL, SC	A-4, A-6	0	0	100	82-100	63-87	43-71	27-37	10-17
	19-27	Loam	CL, SC	A-4, A-6	0	0	100	82-100	63-87	43-71	27-37	10-19
	27-37	Clay loam, loam, silty clay loam	CL, SC	A-6, A-7-6	0	0	96-100	77-100	60-95	41-86	35-43	16-24
	37-60	Stratified sandy clay loam to sandy loam, stratified gravelly sandy loam to silty clay loam	CL, ML, SC	A-2-6, A-7-6, A-6	0	0	82-100	50-100	44-94	22-86	29-41	13-23

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
7777A:												
Adrian----------	0-30	Muck	PT	A-8	---	---	---	---	---	---	---	---
	30-60	Gravelly sand, loamy sand, fine sand, sand	SM, SP	A-1, A-2, A-3	0	0	80-100	60-100	35-75	0-30	0-14	NP
8107+:												
Sawmill---------	0-8	Silt loam	CL	A-6	0	0	100	100	80-100	75-95	25-40	10-20
	8-14	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	85-100	30-50	15-30
	14-46	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	85-100	30-50	15-30
	46-60	Silty clay loam, clay loam, loam	CL	A-6, A-4, A-7	0	0	100	100	85-100	70-95	25-50	8-25
8166A:												
Cohoctah--------	0-19	Loam	CL, CL-ML, ML	A-4	0	0	100	100	90-97	50-72	15-31	2-13
	19-28	Sandy loam, fine sandy loam, loam	CL, ML, SC, SM	A-2, A-4	0	0	95-100	85-100	70-90	30-70	0-30	NP-10
	28-60	Loam, sandy loam, loamy fine sand, sand	CL, ML, SC, SM	A-2, A-4	0	0	95-100	85-100	65-90	20-70	0-30	NP-10
8284A:												
Tice------------	0-14	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	80-95	30-45	10-20
	14-80	Silty clay loam, silt loam	CH, CL	A-7	0	0	100	100	95-100	85-95	40-55	15-30
8302A:												
Ambraw----------	0-9	Loam	CL	A-6, A-7-6	0	0	100	100	85-95	55-80	30-45	10-20
	9-32	Clay loam, clay, loam	CL, CH	A-7-6, A-6	0	0	100	100	80-90	60-80	35-55	15-30
	32-38	Clay loam, sandy clay loam	CL, SC	A-6, A-7-6	0	0	100	90-100	85-95	40-80	30-50	10-25
	38-60	Stratified clay loam to sandy loam	CL, ML, SC, SM	A-4, A-6	0	0	100	90-100	80-90	40-80	20-40	NP-17

Table 18.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
8400A:												
Calco-----------	0-34	Silty clay loam, silty clay	CH, CL	A-7-6	0	0	100	100	95-100	85-100	40-60	15-30
	34-45	Silty clay loam	CH, CL	A-7-6	0	0	100	100	95-100	85-100	40-60	15-30
	45-60	Silty clay loam, loam, clay loam, stratified silt loam to loam	CL	A-6, A-7-6	0	0	100	100	90-100	80-100	30-45	10-20
8415A:												
Orion-----------	0-6	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-100	80-100	25-35	4-12
	6-25	Silt loam, stratified silt loam to very fine sand	CL, CL-ML	A-4	0	0	100	100	90-100	70-80	20-30	4-10
	25-60	Silt loam, silty clay loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-100	85-100	20-40	4-18
8492A:												
Normandy--------	0-13	Loam	CL	A-4, A-6	0	0	100	95-100	80-100	55-85	25-35	7-17
	13-54	Silt loam, loam, clay loam	CL	A-6, A-7	0	0	95-100	90-100	85-95	65-85	30-45	10-20
	54-60	Sand, loamy sand	SP-SM, SP	A-7, A-2-4, A-3	0	0	94-100	85-100	48-65	2-21	6-19	NP-7
8499A:												
Fella-----------	0-20	Silty clay loam	CL	A-7-6	0	0	100	95-100	90-100	85-95	40-50	15-25
	20-43	Silty clay loam	CL	A-6, A-7-6	0	0	100	95-100	90-100	85-95	30-50	15-30
	43-54	Stratified fine sandy loam to silty clay loam	SC, CL	A-4, A-6, A-7-6	0	0	95-100	85-100	70-98	39-91	23-41	8-23
	54-61	Stratified sand to silty clay loam	CL, CL-ML, SP-SM	A-2-4, A-4, A-6	0	0	92-100	77-100	53-97	53-86	15-41	3-23
	61-80	Stratified loamy fine sand to very fine sandy loam	SC, SC-SM, SM	A-6, A-2-4, A-4	0	0	93-100	78-100	76-99	16-39	8-26	NP-12

Table 18.--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		
	In				Pct	Pct					Pct	
8638A:												
Muskego---------	0-6	Muck	PT	A-8	0	0	---	---	---	---	---	---
	6-18	Muck	PT	A-8	0	0	---	---	---	---	---	---
	18-60	Coprogenous silt loam	OL	A-5	0	0	91-100	80-100	66-97	62-97	40-50	2-8

Table 19.--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	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
8D2:														
Hickory-------------	0-6	15-45	30-66	19-25	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.32	.32	5	6	48
	6-51	15-45	20-58	27-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.28	.32			
	51-60	20-50	18-65	15-32	1.50-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.2	.28	.32			
8D3:														
Hickory-------------	0-5	15-40	25-60	27-35	1.40-1.65	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.24	.24	4	6	48
	5-30	15-45	20-60	24-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.28	.32			
	30-40	15-45	20-60	24-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.28	.32			
	40-60	20-50	20-65	15-30	1.50-1.75	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.28	.32			
8F:														
Hickory-------------	0-12	15-45	30-66	19-25	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.32	.32	5	6	48
	12-53	15-45	20-61	24-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.28	.32			
	53-58	30-45	23-55	15-32	1.50-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.28	.32			
	58-63	30-45	25-55	15-30	1.50-1.75	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.28	.32			
8F2:														
Hickory-------------	0-12	15-45	30-66	19-25	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.32	.32	5	6	48
	12-46	15-45	20-58	24-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.32	.32			
	46-72	20-50	18-65	15-32	1.50-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.32	.32			
17A:														
Keomah--------------	0-11	0-7	67-84	16-26	1.35-1.45	0.6-2	0.19-0.24	0.0-2.9	1.0-3.0	.43	.43	5	6	48
	11-18	0-7	67-84	16-26	1.40-1.60	0.2-0.6	0.17-0.21	0.0-2.9	0.1-1.0	.49	.49			
	18-33	0-7	51-65	35-42	1.30-1.40	0.06-0.2	0.15-0.19	6.0-8.9	0.1-0.5	.37	.37			
	33-51	0-7	58-73	27-35	1.35-1.45	0.2-0.6	0.16-0.20	3.0-5.9	0.1-0.5	.37	.37			
	51-89	0-7	66-85	15-27	1.40-1.60	0.6-2	0.19-0.22	0.0-2.9	0.0-0.2	.49	.49			
19D2:														
Sylvan--------------	0-4	1-7	61-80	20-27	1.20-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.43	.43	5	6	48
	4-32	1-7	58-75	25-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.37	.37			
	32-60	1-7	66-90	10-27	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	0.0-0.5	.49	.49			
19D3:														
Sylvan--------------	0-9	0-7	61-73	27-32	1.25-1.45	0.6-2	0.20-0.22	3.0-5.9	0.5-1.0	.37	.37	4	7	38
	9-28	0-7	58-75	25-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.37	.37			
	28-60	0-7	66-90	10-27	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	0.0-0.5	.37	.37			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
19F:														
Sylvan--------------	0-5	0-7	66-82	18-24	1.20-1.40	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	5	6	48
	5-10	0-7	68-85	15-25	1.25-1.45	0.6-2	0.20-0.22	0.0-2.9	0.2-1.0	.49	.49			
	10-27	0-7	58-75	25-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.2-0.5	.37	.37			
	27-80	0-7	66-90	10-27	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	0.2-0.5	.49	.49			
22D2:														
Westville-----------	0-5	30-50	30-50	18-27	1.20-1.40	0.6-2	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	5-60	20-55	20-45	25-35	1.35-1.55	0.6-2	0.15-0.19	3.0-5.9	0.2-1.0	.32	.32			
22D3:														
Westville-----------	0-5	20-45	20-45	25-35	1.30-1.50	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32	4	6	48
	5-60	20-55	20-45	25-35	1.35-1.55	0.6-2	0.15-0.19	3.0-5.9	0.2-1.0	.32	.32			
43A:														
Ipava---------------	0-20	0-7	66-80	20-27	1.15-1.35	0.6-2	0.22-0.24	3.0-5.9	4.0-5.0	.28	.28	5	6	48
	20-40	0-7	50-65	35-43	1.25-1.50	0.2-0.6	0.11-0.20	6.0-8.9	0.5-1.0	.37	.37			
	40-60	0-7	63-80	20-30	1.30-1.55	0.2-0.6	0.20-0.22	3.0-5.9	0.0-0.5	.49	.49			
45A:														
Denny---------------	0-9	0-7	66-80	20-27	1.25-1.45	0.6-2	0.22-0.24	0.0-2.9	3.0-4.0	.37	.37	5	6	48
	9-22	0-7	71-85	15-22	1.25-1.45	0.2-0.6	0.18-0.20	0.0-2.9	0.0-0.5	.43	.43			
	22-45	0-7	48-65	35-45	1.20-1.40	0.06-0.2	0.11-0.22	6.0-8.9	0.0-1.0	.37	.37			
	45-60	0-7	58-75	25-35	1.40-1.60	0.2-0.6	0.20-0.22	3.0-5.9	0.0-0.2	.43	.43			
49A:														
Watseka-------------	0-18	70-95	1-20	8-13	1.35-1.55	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.02	.02	4	2	134
	18-60	85-100	0-15	0-10	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.05	.05			
51A:														
Muscatune-----------	0-16	2-7	66-83	24-27	1.25-1.45	0.6-2	0.22-0.24	0.0-2.9	3.5-5.0	.28	.28	5	6	48
	16-22	2-7	58-73	25-35	1.30-1.50	0.6-2	0.18-0.21	3.0-5.9	0.5-1.5	.37	.37			
	22-46	2-7	58-71	27-35	1.35-1.55	0.6-2	0.18-0.20	3.0-5.9	0.5-1.5	.37	.37			
	46-60	2-7	66-83	15-30	1.40-1.60	0.6-2	0.19-0.26	0.0-2.9	0.0-0.2	.49	.49			
67A:														
Harpster------------	0-18	0-15	50-73	27-37	1.05-1.25	0.6-2	0.21-0.24	3.0-5.9	2.0-5.5	.24	.24	5	4L	86
	18-32	0-15	50-73	27-37	1.20-1.50	0.6-2	0.18-0.22	3.0-5.9	0.5-1.0	.37	.37			
	32-60	0-30	35-83	10-35	1.25-1.55	0.6-2	0.17-0.22	3.0-5.9	0.0-0.5	.43	.43			
68A:														
Sable---------------	0-17	0-7	58-73	27-35	1.15-1.35	0.6-2	0.21-0.23	3.0-5.9	5.0-6.0	.24	.24	5	7	38
	17-23	0-7	58-73	27-35	1.20-1.40	0.6-2	0.18-0.20	3.0-5.9	2.0-4.0	.24	.24			
	23-60	0-7	58-76	24-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.2-1.0	.37	.37			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
69A:														
Milford-------------	0-7	0-20	40-65	32-40	1.30-1.50	0.6-2	0.20-0.23	6.0-8.9	2.0-4.0	.20	.20	5	4	86
	7-24	0-25	40-65	35-43	1.40-1.60	0.2-0.6	0.18-0.20	3.0-5.9	0.5-2.0	.37	.37			
	24-43	0-25	40-65	30-42	1.40-1.60	0.2-0.6	0.18-0.20	3.0-5.9	0.5-1.5	.37	.37			
	43-60	0-50	38-80	15-45	1.50-1.70	0.2-0.6	0.20-0.22	3.0-5.9	0.2-0.4	.49	.49			
81A:														
Littleton-----------	0-9	2-15	58-80	18-27	1.20-1.45	0.6-2	0.20-0.24	0.0-2.9	3.0-4.0	.32	.32	5	6	48
	9-32	0-15	58-78	22-27	1.20-1.40	0.6-2	0.22-0.24	0.0-2.9	0.5-2.0	.49	.49			
	32-60	10-20	58-72	18-27	1.20-1.40	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.49	.49			
86B:														
Osco----------------	0-14	0-7	67-80	20-26	1.25-1.30	0.6-2	0.22-0.24	3.0-5.9	3.0-4.0	.28	.28	5	6	48
	14-55	0-7	58-76	24-35	1.30-1.35	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.37	.37			
	55-60	0-7	63-80	20-30	1.35-1.40	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.49	.49			
86C2:														
Osco----------------	0-9	0-7	67-80	20-26	1.25-1.30	0.6-2	0.22-0.24	3.0-5.9	2.0-3.0	.37	.37	5	6	48
	9-34	0-7	58-76	24-35	1.30-1.35	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.37	.37			
	34-60	0-7	63-80	20-30	1.35-1.40	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.49	.49			
87A:														
Dickinson-----------	0-8	52-70	12-38	10-18	1.50-1.55	2-6	0.12-0.15	0.0-2.9	1.0-2.0	.15	.15	4	3	86
	8-20	52-70	12-38	10-18	1.50-1.55	2-6	0.12-0.15	0.0-2.9	0.5-1.5	.15	.15			
	20-31	52-75	10-38	10-15	1.45-1.55	2-6	0.12-0.15	0.0-2.9	0.5-1.0	.24	.24			
	31-36	75-90	1-20	4-10	1.55-1.65	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.15	.15			
	36-60	75-95	1-20	4-10	1.60-1.70	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.05			
87B:														
Dickinson-----------	0-9	52-75	12-38	10-18	1.50-1.55	2-6	0.12-0.15	0.0-2.9	1.0-2.0	.15	.15	4	3	86
	9-17	52-70	12-38	10-18	1.50-1.55	2-6	0.12-0.15	0.0-2.9	0.5-1.5	.15	.15			
	17-33	52-75	10-38	10-15	1.45-1.55	2-6	0.12-0.15	0.0-2.9	0.5-1.0	.24	.24			
	33-41	75-90	1-20	4-10	1.55-1.65	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.20	.20			
	41-60	75-95	1-20	4-10	1.60-1.70	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.15	.15			
87B2:														
Dickinson-----------	0-8	52-70	12-38	10-18	1.50-1.55	2-6	0.12-0.15	0.0-2.9	1.0-2.0	.17	.17	4	3	86
	8-22	52-75	10-38	10-15	1.45-1.55	2-6	0.12-0.15	0.0-2.9	0.5-1.0	.24	.24			
	22-31	75-90	1-20	4-10	1.55-1.65	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
	31-60	75-95	1-20	4-10	1.60-1.70	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.15	.15			
87C2:														
Dickinson-----------	0-11	52-70	12-38	10-18	1.50-1.55	2-6	0.12-0.15	0.0-2.9	1.0-2.0	.17	.17	4	3	86
	11-29	52-75	10-38	10-15	1.45-1.55	2-6	0.12-0.15	0.0-2.9	0.5-1.0	.24	.24			
	29-35	75-90	1-20	4-10	1.55-1.65	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
	35-60	75-95	1-20	4-10	1.60-1.70	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.15	.15			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
88A:														
Sparta	0-17	75-95	0-22	0-10	1.20-1.40	2-6	0.09-0.12	0.0-2.9	1.0-2.0	.02	.02	5	2	134
	17-31	72-95	0-27	1-8	1.40-1.60	6-20	0.05-0.11	0.0-2.9	0.1-1.0	.10	.10			
	31-72	52-100	0-29	3-16	1.50-1.70	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.17	.17			
88B:														
Sparta	0-14	75-95	0-22	0-10	1.20-1.40	2-6	0.09-0.12	0.0-2.9	1.0-2.0	.02	.02	5	2	134
	14-47	72-95	0-27	1-8	1.40-1.60	6-20	0.05-0.11	0.0-2.9	0.1-1.0	.10	.10			
	47-72	52-100	0-29	3-16	1.40-1.60	6-20	0.06-0.08	0.0-2.9	0.1-1.0	.17	.17			
88C:														
Sparta	0-8	75-95	0-22	0-10	1.20-1.40	2-6	0.09-0.12	0.0-2.9	1.0-2.0	.02	.02	5	2	134
	8-17	75-95	0-22	0-10	1.20-1.40	2-6	0.09-0.12	0.0-2.9	0.5-1.0	.02	.02			
	17-33	72-95	0-27	1-8	1.40-1.60	6-20	0.05-0.11	0.0-2.9	0.1-1.0	.10	.10			
	33-72	52-100	0-29	3-16	1.40-1.60	6-20	0.06-0.08	0.0-2.9	0.1-1.0	.17	.17			
100A:														
Palms	0-24	---	---	0-0	0.25-0.45	0.2-6	0.35-0.45	---	75-99	---	---	2	2	134
	24-60	15-55	35-70	7-35	1.45-1.75	0.2-2	0.14-0.22	0.0-2.9	0.0-1.0	.32	.32			
102A:														
La Hogue	0-16	25-45	28-65	10-27	1.40-1.60	0.6-2	0.20-0.24	0.0-2.9	3.0-4.0	.24	.24	5	5	56
	16-26	20-60	20-50	18-35	1.50-1.70	0.6-2	0.12-0.20	3.0-5.9	0.5-2.0	.32	.32			
	26-36	40-70	15-30	15-35	1.50-1.70	0.6-2	0.11-0.19	3.0-5.9	0.5-1.0	.32	.32			
	36-61	50-90	10-30	5-25	1.50-1.70	0.6-6	0.09-0.15	0.0-2.9	0.2-0.8	.24	.24			
	61-65	5-40	50-80	5-20	1.35-1.55	0.2-2	0.20-0.24	0.0-2.9	0.0-0.5	.32	.32			
119D2:														
Elco	0-6	0-7	66-80	20-27	1.20-1.35	0.6-2	0.22-0.24	0.0-2.9	1.0-2.0	.43	.43	5	6	48
	6-28	0-7	58-77	23-35	1.25-1.45	0.6-2	0.18-0.21	3.0-5.9	0.0-0.5	.37	.37			
	28-60	15-35	20-60	25-45	1.45-1.70	0.06-0.6	0.14-0.20	6.0-8.9	0.0-0.2	.28	.28			
119D3:														
Elco	0-5	0-7	58-73	27-35	1.20-1.35	0.6-2	0.18-0.21	3.0-5.9	0.5-1.0	.37	.37	4	7	38
	5-26	0-7	58-77	23-35	1.25-1.45	0.6-2	0.18-0.21	3.0-5.9	0.0-0.5	.37	.37			
	26-60	15-35	20-60	25-45	1.45-1.70	0.06-0.6	0.14-0.20	6.0-8.9	0.0-0.2	.28	.28			
125A:														
Selma	0-23	30-50	35-49	17-27	1.40-1.60	0.6-2	0.20-0.24	0.0-2.9	3.0-5.0	.24	.24	5	6	48
	23-53	15-50	27-49	18-30	1.40-1.60	0.6-2	0.15-0.19	3.0-5.9	0.0-2.0	.32	.32			
	53-60	60-90	5-25	1-18	1.60-1.90	2-6	0.07-0.19	0.0-2.9	0.0-1.0	.28	.28			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodibility group	Wind erodibility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
148B:														
Proctor-------------	0-11	0-10	63-82	18-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	3.0-4.0	.28	.28	5	6	48
	11-28	0-10	55-75	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.5-2.0	.37	.37			
	28-33	15-70	0-67	18-32	1.30-1.55	0.6-2	0.13-0.16	3.0-5.9	0.2-1.0	.32	.32			
	33-60	15-85	0-80	5-20	1.40-1.70	0.6-6	0.07-0.19	0.0-2.9	0.2-0.5	.28	.28			
148C2:														
Proctor-------------	0-8	0-10	63-82	18-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.37	.37	5	6	48
	8-32	0-10	55-75	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.5-2.0	.37	.37			
	32-48	15-70	0-67	22-35	1.30-1.55	0.6-6	0.13-0.16	3.0-5.9	0.2-1.0	.32	.32			
	48-60	15-85	0-80	10-20	1.40-1.70	0.6-6	0.07-0.19	0.0-2.9	0.2-0.5	.28	.28			
149A:														
Brenton-------------	0-16	0-15	58-80	20-27	1.25-1.45	0.6-2	0.22-0.26	0.0-2.9	3.0-5.0	.28	.28	5	6	48
	16-35	0-15	50-75	25-35	1.30-1.55	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.28	.28			
	35-53	15-60	10-67	20-30	1.40-1.60	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.28	.28			
	53-60	15-80	0-80	5-15	1.50-1.70	0.6-2	0.08-0.15	0.0-2.9	0.0-0.5	.28	.32			
152A:														
Drummer-------------	0-14	0-15	50-73	27-35	1.10-1.30	0.6-2	0.21-0.23	0.0-2.9	5.0-7.0	.28	.28	5	6	48
	14-41	0-15	50-80	20-35	1.20-1.45	0.6-2	0.21-0.24	3.0-5.9	0.0-1.0	.28	.28			
	41-47	15-55	12-70	15-33	1.30-1.55	0.6-2	0.17-0.20	3.0-5.9	0.0-0.5	.28	.32			
	47-60	15-80	0-75	10-32	1.40-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.28	.32			
153A:														
Pella---------------	0-23	0-15	50-73	27-35	1.10-1.30	0.6-2	0.21-0.23	3.0-5.9	5.0-6.0	.24	.24	5	7	38
	23-46	0-15	50-73	27-35	1.20-1.45	0.6-2	0.21-0.24	3.0-5.9	0.5-1.0	.28	.28			
	46-50	10-55	15-75	15-30	1.35-1.60	0.6-2	0.15-0.20	3.0-5.9	0.2-0.5	.28	.37			
	50-60	15-80	0-75	15-30	1.40-1.70	0.6-2	0.10-0.22	0.0-2.9	0.0-0.2	.28	.37			
172A:														
Hoopeston-----------	0-14	35-75	17-40	8-18	1.35-1.70	2-6	0.12-0.15	0.0-2.9	2.0-3.0	.15	.15	4	3	86
	14-38	45-75	15-30	10-18	1.45-1.70	2-6	0.12-0.17	0.0-2.9	0.2-1.0	.28	.28			
	38-60	70-88	1-10	2-12	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.1-0.5	.17	.17			
198A:														
Elburn--------------	0-13	0-10	63-78	22-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	4.0-5.0	.28	.28	5	6	48
	13-44	0-10	57-75	25-35	1.20-1.40	0.6-2	0.18-0.20	3.0-5.9	0.5-2.0	.43	.43			
	44-65	15-70	0-70	15-30	1.50-1.70	0.6-6	0.12-0.18	0.0-2.9	0.0-0.2	.43	.43			
	65-80	15-80	5-83	2-15	1.50-1.75	2-6	0.06-0.10	0.0-2.9	0.0-0.2	.05	.05			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
199A:														
Plano---------------	0-14	0-10	63-82	18-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	3.0-5.0	.28	.28	5	6	48
	14-49	0-10	55-80	20-35	1.20-1.40	0.6-2	0.18-0.20	3.0-5.9	0.2-1.0	.37	.37			
	49-60	15-70	0-70	15-32	1.30-1.55	0.6-6	0.09-0.16	0.0-2.9	0.1-0.5	.32	.32			
	60-72	15-80	0-80	5-20	1.50-1.70	2-6	0.11-0.22	0.0-2.9	0.1-0.5	.28	.28			
199B:														
Plano---------------	0-15	0-10	63-82	18-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	3.0-5.0	.28	.28	5	6	48
	15-45	0-10	55-80	20-35	1.20-1.40	0.6-2	0.18-0.20	3.0-5.9	0.2-1.0	.37	.37			
	45-55	15-70	0-70	15-30	1.30-1.55	0.6-6	0.09-0.16	0.0-2.9	0.1-0.5	.32	.32			
	55-72	65-80	5-50	5-15	1.50-1.70	2-6	0.11-0.22	0.0-2.9	0.1-0.5	.28	.28			
199C2:														
Plano---------------	0-8	0-10	63-82	18-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	5	6	48
	8-41	0-10	55-80	20-35	1.20-1.40	0.6-2	0.18-0.20	3.0-5.9	0.2-1.0	.37	.37			
	41-53	15-70	5-70	15-30	1.30-1.55	0.6-6	0.09-0.16	0.0-2.9	0.1-0.5	.32	.32			
	53-60	65-80	5-50	5-15	1.50-1.70	2-6	0.11-0.22	0.0-2.9	0.1-0.5	.28	.28			
200A:														
Orio----------------	0-9	30-50	30-50	10-20	1.25-1.45	0.6-2	0.20-0.24	0.0-2.9	1.0-2.0	.28	.28	4	5	56
	9-18	40-80	15-45	6-20	1.30-1.50	0.6-2	0.09-0.18	0.0-2.9	0.2-0.5	.28	.28			
	18-35	25-60	15-45	18-35	1.40-1.60	0.2-0.6	0.12-0.19	3.0-5.9	0.0-0.2	.28	.28			
	35-41	54-80	14-36	10-22	1.50-1.70	0.6-2	0.09-0.17	0.0-2.9	0.0-0.2	.28	.28			
	41-60	70-95	2-10	3-10	1.55-1.75	6-20	0.05-0.13	0.0-2.9	0.0-0.2	.28	.28			
201A:														
Gilford-------------	0-18	30-85	5-45	10-20	1.50-1.70	2-6	0.15-0.21	0.0-2.9	2.0-4.0	.28	.28	4	3	86
	18-32	45-85	5-35	8-17	1.60-1.70	2-6	0.10-0.18	0.0-2.9	0.0-1.0	.24	.24			
	32-60	70-100	0-20	2-10	1.65-1.80	6-20	0.03-0.11	0.0-2.9	0.0-0.5	.05	.05			
206A:														
Thorp---------------	0-14	2-15	58-78	20-27	1.15-1.35	0.2-0.6	0.22-0.24	0.0-2.9	4.0-6.0	.28	.28	5	6	48
	14-19	3-15	60-79	18-25	1.30-1.50	0.2-0.6	0.20-0.22	0.0-2.9	0.5-1.0	.43	.43			
	19-43	3-15	50-75	22-35	1.35-1.55	0.06-0.2	0.18-0.20	3.0-5.9	0.0-0.5	.37	.37			
	43-50	10-55	15-72	18-30	1.40-1.60	0.06-0.2	0.15-0.22	3.0-5.9	0.0-0.5	.28	.28			
	50-65	15-75	1-80	5-30	1.50-1.70	2-6	0.05-0.13	0.0-2.9	0.0-0.5	.28	.28			
212B:														
Thebes--------------	0-9	5-20	55-80	15-25	1.30-1.35	0.6-2	0.20-0.22	0.0-2.9	2.0-3.0	.43	.43	5	5	48
	9-31	5-20	45-70	25-35	1.30-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.37	.37			
	31-40	30-60	15-60	15-30	1.30-1.35	2-6	0.11-0.17	0.0-2.9	0.0-0.5	.32	.32			
	40-80	70-95	1-27	3-10	1.30-1.35	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
212D3:														
Thebes--------------	0-9	5-20	48-67	28-32	1.35-1.45	0.6-2	0.18-0.20	3.0-5.9	0.5-1.0	.43	.43	4	7	38
	9-34	5-20	45-70	25-35	1.30-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.37	.37			
	34-59	30-60	15-60	15-30	1.30-1.35	2-6	0.11-0.17	0.0-2.9	0.0-0.5	.24	.24			
	59-80	70-95	1-27	3-10	1.30-1.35	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
219A:														
Millbrook-----------	0-14	0-15	58-82	18-27	1.40-1.60	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.37	.37	5	6	48
	14-35	0-15	50-75	25-35	1.45-1.65	0.6-2	0.18-0.20	3.0-5.9	0.2-1.0	.37	.37			
	35-44	5-62	18-35	18-35	1.45-1.70	0.6-2	0.12-0.19	3.0-5.9	0.2-0.5	.32	.32			
	44-60	20-80	5-40	10-30	1.50-1.75	0.6-2	0.11-0.19	0.0-2.9	0.2-0.5	.28	.28			
250C2:														
Velma---------------	0-13	15-45	28-65	20-27	1.30-1.50	0.6-2	0.20-0.24	0.0-2.9	3.0-4.0	.24	.24	5	6	48
	13-45	15-45	20-50	25-35	1.45-1.65	0.6-2	0.05-0.19	3.0-5.9	0.5-1.0	.32	.32			
	45-60	20-50	20-60	15-30	1.50-1.70	0.6-2	0.06-0.09	0.0-2.9	0.2-0.5	.37	.37			
250D2:														
Velma---------------	0-7	15-45	28-65	20-27	1.30-1.50	0.6-2	0.20-0.24	0.0-2.9	3.0-4.0	.28	.28	5	6	48
	7-45	15-45	20-50	25-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.2-1.0	.32	.32			
	45-60	20-50	20-60	15-30	1.50-1.70	0.6-2	0.06-0.09	0.0-2.9	0.2-0.5	.37	.37			
250E2:														
Velma---------------	0-7	15-45	28-65	20-27	1.30-1.50	0.6-2	0.20-0.24	0.0-2.9	3.0-4.0	.28	.28	5	6	48
	7-43	15-45	20-50	25-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.2-1.0	.32	.32			
	43-60	20-50	20-60	15-30	1.50-1.70	0.6-2	0.06-0.09	0.0-2.9	0.2-0.5	.37	.37			
257A:														
Clarksdale----------	0-8	0-7	66-80	20-27	1.30-1.50	0.6-2	0.22-0.25	3.0-5.9	2.0-3.0	.37	.37	5	6	48
	8-16	0-7	66-85	15-27	1.25-1.50	0.2-0.6	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	16-47	0-7	48-65	35-45	1.30-1.50	0.2-0.6	0.11-0.20	6.0-8.9	0.0-0.5	.37	.37			
	47-67	0-7	63-80	20-30	1.40-1.60	0.6-2	0.20-0.22	3.0-5.9	0.0-0.5	.43	.43			
	67-80	0-7	66-82	18-27	1.40-1.60	0.6-2	0.20-0.22	0.0-2.9	0.0-0.5	.49	.49			
259B:														
Assumption----------	0-16	0-7	66-80	20-27	1.25-1.45	0.6-2	0.23-0.25	0.0-2.9	3.0-4.0	.28	.28	5	6	48
	16-35	0-7	58-75	25-35	1.20-1.40	0.6-2	0.18-0.22	3.0-5.9	0.0-1.0	.43	.43			
	35-80	20-30	25-50	30-45	1.45-1.65	0.06-0.6	0.14-0.20	6.0-8.9	0.0-0.5	.43	.43			
259C2:														
Assumption----------	0-8	0-7	66-73	20-27	1.25-1.45	0.6-2	0.23-0.25	0.0-2.9	3.0-4.0	.28	.28	5	6	48
	8-24	0-7	58-66	25-35	1.20-1.40	0.6-2	0.18-0.22	3.0-5.9	0.0-1.0	.43	.43			
	24-60	20-30	25-50	25-45	1.40-1.60	0.06-0.6	0.16-0.20	3.0-8.9	0.0-0.5	.43	.43			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
259D2:														
Assumption----------	0-7	0-7	66-80	20-27	1.25-1.45	0.6-2	0.23-0.25	0.0-2.9	2.0-3.0	.37	.37	5	6	48
	7-28	0-7	58-75	25-35	1.20-1.40	0.6-2	0.18-0.22	3.0-5.9	0.0-1.0	.37	.37			
	28-60	20-30	25-50	30-45	1.45-1.65	0.06-0.6	0.14-0.20	6.0-8.9	0.0-0.5	.28	.28			
261A:														
Niota---------------	0-9	5-20	53-70	20-27	1.20-1.35	0.2-0.6	0.22-0.24	0.0-2.9	1.0-3.0	.37	.37	3	6	48
	9-16	7-25	50-75	18-25	1.30-1.55	0.2-0.6	0.18-0.22	0.0-2.9	0.0-0.5	.43	.43			
	16-27	2-10	30-60	38-60	1.40-1.60	0.0015-0.06	0.09-0.13	6.0-8.9	0.0-1.0	.32	.32			
	27-36	2-30	30-73	25-40	1.40-1.60	0.2-0.6	0.17-0.22	3.0-5.9	0.0-0.5	.37	.37			
	36-49	1-75	1-87	12-25	1.50-1.70	0.2-2	0.08-0.20	3.0-5.9	0.0-0.5	.32	.32			
	49-60	15-80	0-80	5-20	1.50-1.70	2-6	0.11-0.22	0.0-2.9	0.1-0.5	.28	.28			
262A:														
Denrock-------------	0-13	10-30	43-72	18-27	1.20-1.35	0.2-0.6	0.22-0.24	0.0-2.9	3.0-5.0	.37	.37	3	6	48
	13-36	2-20	20-60	38-60	1.40-1.60	0.0015-0.06	0.09-0.13	3.0-5.9	0.0-2.0	.37	.37			
	36-40	20-46	20-45	25-40	1.40-1.60	0.2-0.6	0.15-0.19	3.0-5.9	0.0-0.5	.37	.37			
	40-60	40-100	0-35	1-20	1.60-1.80	6-20	0.05-0.10	0.0-2.9	0.0-0.1	.15	.15			
274B:														
Seaton--------------	0-9	1-7	71-89	10-22	1.10-1.45	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	5	5	56
	9-60	1-7	66-81	18-27	1.20-1.60	0.6-2	0.20-0.22	0.0-2.9	0.5-1.0	.43	.43			
	60-80	1-7	68-89	10-25	1.20-1.50	0.6-2	0.20-0.22	0.0-2.9	0.2-0.5	.49	.49			
274C2:														
Seaton--------------	0-7	1-7	71-84	15-22	1.10-1.20	0.6-2	0.22-0.24	0.0-2.9	0.5-2.0	.43	.43	5	5	56
	7-47	1-7	66-81	18-27	1.15-1.30	0.6-2	0.20-0.22	0.0-2.9	0.5-1.0	.43	.43			
	47-60	1-7	68-89	10-25	1.20-1.50	0.6-2	0.20-0.22	0.0-2.9	0.2-0.5	.49	.49			
274D2:														
Seaton--------------	0-8	1-7	71-84	15-22	1.10-1.20	0.6-2	0.22-0.24	0.0-2.9	0.5-2.0	.37	.37	5	5	56
	8-52	1-7	66-81	18-27	1.15-1.30	0.6-2	0.20-0.22	0.0-2.9	0.5-1.0	.37	.37			
	52-60	1-7	68-89	10-25	1.20-1.50	0.6-2	0.20-0.22	0.0-2.9	0.2-0.5	.49	.49			
275A:														
Joy-----------------	0-15	0-7	68-84	15-25	1.10-1.20	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	5	6	48
	15-51	0-7	66-82	18-27	1.15-1.25	0.6-2	0.20-0.22	0.0-2.9	0.1-1.0	.43	.43			
	51-60	0-45	45-88	12-23	1.15-1.30	0.6-2	0.20-0.22	0.0-2.9	0.0-0.2	.49	.49			
277C2:														
Port Byron----------	0-9	0-7	66-82	18-27	1.10-1.20	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.37	.37	5	6	48
	9-48	0-7	66-82	18-27	1.15-1.30	0.6-2	0.20-0.22	0.0-2.9	0.2-0.5	.43	.43			
	48-60	0-7	66-82	18-27	1.20-1.40	0.6-2	0.20-0.22	0.0-2.9	0.0-0.2	.49	.49			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
279A:														
Rozetta-------------	0-4	0-7	66-85	15-27	1.20-1.40	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	5	6	48
	4-11	0-7	66-88	12-27	1.20-1.40	0.6-2	0.22-0.24	0.0-2.9	0.2-0.5	.37	.37			
	11-50	0-7	58-73	27-35	1.35-1.55	0.6-2	0.18-0.22	3.0-5.9	0.2-0.5	.37	.37			
	50-60	0-7	63-80	20-30	1.40-1.60	0.6-2	0.20-0.22	0.0-2.9	0.2-0.5	.37	.37			
279B:														
Rozetta-------------	0-7	0-7	66-85	15-27	1.20-1.40	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	5	6	48
	7-11	0-7	66-88	12-27	1.20-1.40	0.6-2	0.22-0.24	0.0-2.9	0.1-1.0	.49	.49			
	11-55	0-7	58-73	27-35	1.35-1.55	0.6-2	0.18-0.22	3.0-5.9	0.0-0.5	.37	.37			
	55-60	0-7	63-80	20-30	1.40-1.60	0.6-2	0.20-0.22	0.0-2.9	0.0-0.5	.49	.49			
280B:														
Fayette-------------	0-9	0-7	66-85	15-27	1.30-1.35	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.43	.43	5	6	48
	9-39	0-7	58-75	25-35	1.30-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.37	.37			
	39-60	0-7	67-78	22-26	1.45-1.50	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.49	.49			
280C2:														
Fayette-------------	0-8	0-7	66-75	25-27	1.35-1.45	0.6-2	0.18-0.20	3.0-5.9	1.0-2.0	.43	.43	5	6	48
	8-64	0-7	58-75	25-35	1.30-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.37	.37			
	64-80	0-7	67-88	22-26	1.45-1.50	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.49	.49			
280D2:														
Fayette-------------	0-6	0-7	66-75	25-27	1.35-1.45	0.6-2	0.18-0.20	3.0-5.9	1.0-2.0	.43	.43	5	6	48
	6-48	0-7	58-75	25-35	1.30-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.37	.37			
	48-60	0-7	67-78	22-26	1.45-1.50	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.49	.49			
280D3:														
Fayette-------------	0-8	0-7	61-73	27-32	1.35-1.45	0.6-2	0.18-0.20	3.0-5.9	0.5-1.0	.37	.37	4	7	38
	8-36	0-7	58-75	25-35	1.30-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.37	.37			
	36-60	0-7	67-78	22-26	1.45-1.50	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.49	.49			
430A:														
Raddle--------------	0-21	2-15	61-80	18-24	1.20-1.40	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	6	48
	21-80	2-15	61-80	18-24	1.20-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.49	.49			
430B:														
Raddle--------------	0-13	2-15	61-80	18-24	1.20-1.40	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	6	48
	13-60	2-15	61-80	18-24	1.20-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.43	.43			
457A:														
Booker--------------	0-18	0-5	25-60	40-70	1.30-1.50	0.0000-0.06	0.11-0.14	9.0-25.0	1.0-5.0	.17	.17	5	4	86
	18-44	0-10	25-60	40-70	1.30-1.60	0.0000-0.06	0.09-0.14	9.0-25.0	0.2-1.0	.32	.32			
	44-60	0-5	25-60	40-70	1.30-1.60	0.0000-0.06	0.09-0.11	9.0-25.0	0.2-1.0	.37	.37			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
465A:														
Montgomery----------	0-17	1-10	40-60	40-48	1.40-1.60	0.2-0.6	0.12-0.14	6.0-8.9	2.0-4.0	.28	.28	5	4	86
	17-55	1-15	35-60	35-50	1.45-1.65	0.06-0.2	0.11-0.18	6.0-8.9	0.0-1.0	.37	.37			
	55-60	1-10	35-60	35-48	1.50-1.60	0.06-0.2	0.18-0.20	3.0-5.9	0.0-0.5	.37	.37			
485A:														
Richwood------------	0-14	0-15	63-85	15-22	1.35-1.60	0.6-2	0.22-0.24	0.0-2.9	2.0-5.0	.32	.32	4	5	56
	14-48	0-15	55-82	18-30	1.55-1.65	0.6-2	0.18-0.22	3.0-5.9	0.5-1.0	.43	.43			
	48-57	20-40	40-70	10-20	1.55-1.65	0.6-6	0.09-0.22	0.0-2.9	0.0-0.5	.32	.32			
	57-60	85-100	0-10	0-4	1.55-1.65	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.05	.05			
485B:														
Richwood------------	0-18	0-15	63-85	15-22	1.35-1.60	0.6-2	0.22-0.24	0.0-2.9	2.0-5.0	.32	.32	4	5	56
	18-46	0-15	55-82	18-30	1.55-1.65	0.6-2	0.18-0.22	3.0-5.9	0.5-1.0	.43	.43			
	46-60	20-40	40-70	10-20	1.55-1.65	0.6-6	0.09-0.22	0.0-2.9	0.0-0.5	.28	.28			
	60-79	85-100	0-10	0-4	1.55-1.65	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.05	.05			
487A:														
Joyce---------------	0-20	5-30	55-80	15-25	1.10-1.20	0.6-2	0.22-0.24	0.0-2.9	3.0-4.0	.28	.28	4	6	48
	20-44	5-20	53-75	20-27	1.15-1.25	0.6-2	0.20-0.22	0.0-2.9	0.0-1.0	.43	.43			
	44-47	30-60	25-50	15-22	1.40-1.65	2-6	0.14-0.18	0.0-2.9	0.0-0.5	.32	.32			
	47-60	70-95	1-25	2-10	1.80-1.95	6-20	0.05-0.10	0.0-2.9	0.0-0.4	.24	.24			
488A:														
Hooppole------------	0-17	30-50	30-50	20-27	1.40-1.60	0.6-2	0.20-0.24	3.0-5.9	4.0-8.0	.24	.24	4	4L	86
	17-44	30-60	25-50	15-31	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.5-2.0	.32	.32			
	44-60	85-100	0-20	0-12	1.65-1.80	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.05	.05			
546B:														
Keltner-------------	0-14	0-7	66-90	20-27	1.15-1.35	0.6-2	0.22-0.24	0.0-2.9	3.0-4.0	.28	.28	4	6	48
	14-38	0-7	58-73	27-35	1.25-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.43	.43			
	38-40	0-20	35-62	38-50	1.40-1.60	0.06-0.2	0.04-0.06	3.0-5.9	0.0-0.5	.37	.37			
	40-60	---	---	---	---	0.01-0.2	---	---	---	---	---			
546C2:														
Keltner-------------	0-11	0-7	66-80	20-27	1.15-1.35	0.6-2	0.22-0.24	0.0-2.9	3.0-4.0	.28	.28	4	6	48
	11-34	0-7	58-73	27-35	1.25-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.43	.43			
	34-43	0-20	35-62	38-50	1.40-1.60	0.06-0.2	0.04-0.06	3.0-5.9	0.0-0.5	.37	.37			
	43-60	---	---	---	---	0.01-0.2	---	---	---	---	---			
549D2:														
Marseilles----------	0-5	0-25	58-80	20-27	1.20-1.40	0.6-2	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	3	6	48
	5-27	0-25	43-73	27-42	1.35-1.60	0.06-0.2	0.09-0.20	3.0-6.0	0.0-0.5	.37	.37			
	27-60	---	---	---	---	0.0015-0.2	---	---	---	---	---			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
549F:														
Marseilles----------	0-10	0-15	58-80	20-27	1.20-1.40	0.6-2	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	3	6	48
	10-35	0-15	43-73	27-42	1.35-1.60	0.06-0.2	0.09-0.20	3.0-6.0	0.0-0.5	.37	.37			
	35-60	---	---	---	---	0.0015-0.2	---	---	---	---	---			
549F2:														
Marseilles----------	0-5	0-15	58-80	20-27	1.20-1.40	0.6-2	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	3	6	48
	5-12	0-15	58-80	20-27	1.20-1.40	0.6-2	0.20-0.24	0.0-2.9	0.5-1.5	.37	.37			
	12-37	0-15	58-73	27-42	1.35-1.60	0.06-0.2	0.09-0.20	3.0-5.9	0.0-1.0	.37	.37			
	37-60	---	---	---	---	0.0015-0.2	---	---	---	---	---			
564A:														
Waukegan------------	0-17	10-30	55-80	18-27	1.35-1.55	0.6-2	0.22-0.24	0.0-2.9	2.0-5.0	.32	.32	4	6	48
	17-30	10-40	35-75	18-27	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.43	.43			
	35-60	85-100	0-10	0-10	1.50-1.70	6-20	0.04-0.09	0.0-2.9	0.0-0.3	.02	.02			
564B:														
Waukegan------------	0-13	10-30	55-80	18-27	1.35-1.55	0.6-2	0.22-0.24	0.0-2.9	2.0-5.0	.32	.32	4	6	48
	13-35	10-40	35-75	18-27	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.43	.43			
	35-60	85-100	0-10	0-10	1.50-1.70	6-20	0.04-0.09	0.0-2.9	0.0-0.3	.02	.02			
564B2:														
Waukegan------------	0-9	10-30	55-80	18-27	1.35-1.55	0.6-2	0.22-0.24	0.0-2.9	2.0-5.0	.28	.28	4	6	48
	9-23	10-40	35-75	18-27	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.43	.43			
	23-60	85-100	0-10	0-10	1.50-1.70	6-20	0.04-0.09	0.0-2.9	0.0-0.3	.02	.02			
565A:														
Tell----------------	0-14	15-35	50-70	14-18	1.35-1.45	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	14-30	10-20	55-76	14-28	1.50-1.60	0.6-2	0.18-0.22	3.0-5.9	0.0-0.5	.37	.37			
	30-34	45-75	10-40	10-25	1.50-1.60	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.37	.37			
	34-60	75-95	2-25	2-12	1.55-1.70	6-20	0.04-0.07	0.0-2.9	0.0-0.5	.15	.15			
565B:														
Tell----------------	0-7	15-35	50-70	14-18	1.35-1.45	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	7-28	10-20	55-76	14-28	1.50-1.60	0.6-2	0.18-0.22	3.0-5.9	0.0-0.5	.37	.37			
	28-35	45-75	10-40	10-25	1.50-1.60	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.37	.37			
	35-60	75-95	2-25	2-12	1.55-1.70	6-20	0.04-0.07	0.0-2.9	0.0-0.5	.15	.15			
565C2:														
Tell----------------	0-6	15-35	50-70	14-18	1.35-1.45	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	6-29	10-20	55-76	14-28	1.50-1.60	0.6-2	0.18-0.22	3.0-5.9	0.0-0.5	.37	.37			
	29-33	45-75	10-40	10-25	1.50-1.60	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.37	.37			
	33-60	75-95	2-25	2-12	1.55-1.70	6-20	0.04-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
567D2:														
Elkhart-------------	0-10	0-7	66-80	20-27	1.15-1.35	0.6-2	0.22-0.24	0.0-2.9	2.0-3.0	.28	.28	5	6	48
	10-30	0-7	58-75	25-35	1.25-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.37	.37			
	30-60	0-7	66-85	10-27	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	0.0-0.1	.49	.49			
572A:														
Loran---------------	0-14	0-7	66-80	20-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	4.0-5.0	.28	.28	4	6	48
	14-39	0-7	45-78	22-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.5-2.0	.43	.43			
	39-53	5-35	15-60	35-50	1.50-1.70	0.06-0.2	0.04-0.08	3.0-5.9	0.0-0.5	.32	.32			
	53-60	---	---	---	---	0.01-0.2	---	---	---	---	---			
572B:														
Loran---------------	0-12	0-7	66-80	20-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	4.0-5.0	.28	.28	4	6	48
	12-43	0-7	45-78	22-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.5-2.0	.37	.37			
	43-51	5-35	15-60	35-50	1.50-1.70	0.06-0.2	0.04-0.08	3.0-5.9	0.0-0.5	.32	.32			
	51-60	---	---	---	---	0.01-0.2	---	---	---	---	---			
572C2:														
Loran---------------	0-9	0-7	66-80	20-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	4.0-5.0	.28	.28	4	6	48
	9-41	0-7	45-78	22-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.5-2.0	.43	.43			
	41-60	5-35	14-60	35-50	1.50-1.70	0.06-0.2	0.04-0.08	3.0-5.9	0.0-0.5	.32	.32			
618C2:														
Senachwine----------	0-6	15-40	30-66	19-25	1.20-1.65	0.6-2	0.17-0.26	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	6-27	15-40	20-58	27-35	1.40-1.70	0.6-2	0.07-0.21	3.0-5.9	0.0-0.5	.37	.37			
	27-32	20-45	18-65	20-27	1.60-1.80	0.2-0.6	0.07-0.17	0.0-2.9	0.0-0.5	.37	.43			
	32-60	20-45	18-65	15-25	1.75-1.95	0.2-0.6	0.01-0.03	0.0-2.9	0.0-0.5	.37	.43			
618D2:														
Senachwine----------	0-6	15-40	30-66	19-25	1.20-1.65	0.6-2	0.17-0.26	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	6-28	15-40	20-58	27-35	1.40-1.70	0.6-2	0.07-0.21	3.0-5.9	0.0-0.5	.37	.37			
	28-34	20-45	18-65	20-27	1.60-1.80	0.2-0.6	0.07-0.17	0.0-2.9	0.0-0.5	.37	.43			
	34-60	20-45	18-65	15-25	1.75-1.95	0.2-0.6	0.01-0.03	0.0-2.9	0.0-0.5	.37	.43			
670A:														
Aholt---------------	0-51	0-5	15-45	60-80	1.30-1.45	0.0000-0.06	0.11-0.14	9.0-25.0	4.0-6.0	.28	.28	5	4	86
	51-60	0-15	25-65	35-60	1.30-1.60	0.0000-0.06	0.09-0.18	9.0-25.0	0.2-1.0	.28	.28			
671A:														
Biggsville----------	0-13	0-7	66-82	18-27	1.10-1.20	0.6-2	0.22-0.24	0.0-2.9	3.0-5.0	.28	.28	5	6	48
	13-53	0-7	68-82	18-25	1.15-1.30	0.6-2	0.20-0.22	0.0-2.9	0.5-2.0	.43	.43			
	53-80	0-7	66-85	15-27	1.20-1.40	0.6-2	0.20-0.22	0.0-2.9	0.0-0.5	.49	.49			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
671B:														
Biggsville----------	0-13	0-7	66-82	18-27	1.10-1.20	0.6-2	0.22-0.24	0.0-2.9	3.0-5.0	.28	.28	5	6	48
	13-53	0-7	68-82	18-25	1.15-1.30	0.6-2	0.20-0.22	0.0-2.9	0.5-2.0	.43	.43			
	53-80	0-7	66-85	15-27	1.20-1.40	0.6-2	0.20-0.22	0.0-2.9	0.0-0.5	.49	.49			
672A:														
Cresent-------------	0-15	25-55	23-65	10-22	1.30-1.45	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.24	.24	4	5	56
	15-46	25-65	3-55	20-32	1.40-1.60	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	46-60	70-100	0-28	2-10	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.05	.05			
672B:														
Cresent-------------	0-7	25-55	23-65	10-22	1.30-1.45	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.24	.24	4	5	56
	7-11	25-55	23-65	10-22	1.35-1.55	0.6-2	0.17-0.22	0.0-2.9	0.5-1.0	.24	.24			
	11-41	25-65	3-55	20-32	1.40-1.60	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	41-60	70-100	0-28	2-10	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.05	.05			
672D3:														
Cresent-------------	0-7	25-55	23-65	10-22	1.30-1.45	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	3	5	56
	7-46	25-65	3-55	20-32	1.40-1.60	0.6-2	0.13-0.19	0.0-2.9	0.5-1.0	.32	.32			
	46-60	70-100	0-28	0-10	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
675A:														
Greenbush-----------	0-9	0-7	68-85	15-25	1.25-1.30	2-6	0.21-0.23	0.0-2.9	2.0-3.0	.37	.37	5	6	48
	9-16	0-7	66-85	15-27	1.30-1.35	0.6-2	0.18-0.20	0.0-2.9	0.5-1.0	.43	.43			
	16-46	0-7	58-74	26-35	1.30-1.35	0.6-2	0.18-0.20	3.0-5.9	0.5-1.0	.37	.37			
	46-60	0-7	66-82	18-27	1.35-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.49	.49			
675B:														
Greenbush-----------	0-14	0-7	68-82	18-25	1.25-1.30	0.6-2	0.21-0.23	0.0-2.9	2.0-3.0	.37	.37	5	6	48
	14-60	0-7	58-74	26-35	1.30-1.35	0.6-2	0.18-0.20	3.0-5.9	0.5-1.0	.37	.37			
	60-80	0-7	66-82	18-27	1.35-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.49	.49			
675C2:														
Greenbush-----------	0-6	0-7	68-82	18-25	1.25-1.30	0.6-2	0.21-0.23	0.0-2.9	1.0-3.0	.37	.37	5	6	48
	6-46	0-7	58-74	26-35	1.30-1.35	0.6-2	0.18-0.20	3.0-5.9	0.5-1.0	.37	.37			
	46-60	0-7	66-82	18-27	1.35-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.49	.49			
684B:														
Broadwell-----------	0-15	5-20	55-80	20-27	1.25-1.45	0.6-2	0.23-0.26	0.0-2.9	3.0-4.0	.28	.28	5	6	48
	15-50	0-10	55-76	24-35	1.35-1.60	0.6-2	0.14-0.24	3.0-5.9	0.0-1.0	.37	.37			
	50-55	40-80	0-35	10-28	1.30-1.35	2-6	0.11-0.17	0.0-2.9	0.0-0.5	.32	.32			
	55-80	70-100	1-30	3-10	1.55-1.75	6-20	0.08-0.11	0.0-2.9	0.0-0.5	.15	.15			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
684C2:														
Broadwell-----------	0-10	5-20	55-76	20-27	1.25-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	5	6	48
	10-48	0-10	55-80	24-35	1.30-1.35	0.6-2	0.19-0.22	3.0-5.9	1.0-2.0	.37	.37			
	48-59	50-80	1-35	15-20	1.30-1.35	2-6	0.11-0.17	0.0-2.9	0.5-1.0	.24	.24			
	59-70	70-100	1-30	3-10	1.30-1.35	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
686A:														
Parkway-------------	0-16	0-7	66-82	18-27	1.25-1.45	0.6-2	0.23-0.26	0.0-2.9	3.0-4.0	.28	.28	5	6	48
	16-56	0-15	50-73	27-35	1.25-1.55	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.43	.43			
	56-60	20-50	20-65	15-30	1.40-1.70	0.6-2	0.07-0.11	0.0-2.9	0.0-0.5	.32	.32			
686B:														
Parkway-------------	0-18	0-7	66-82	18-27	1.25-1.45	0.6-2	0.23-0.26	0.0-2.9	3.0-4.0	.28	.28	5	6	48
	18-49	0-15	50-73	27-35	1.25-1.55	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.43	.43			
	49-60	15-50	20-65	20-30	1.40-1.70	0.6-2	0.07-0.11	0.0-2.9	0.0-0.5	.32	.32			
686B2:														
Parkway-------------	0-9	0-7	66-82	18-27	1.25-1.45	0.6-2	0.23-0.26	0.0-2.9	3.0-4.0	.28	.28	5	6	48
	9-40	0-15	50-73	27-35	1.25-1.55	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.43	.43			
	40-60	15-50	20-65	20-30	1.40-1.70	0.6-2	0.07-0.11	0.0-2.9	0.0-0.5	.32	.32			
689B:														
Coloma--------------	0-10	85-100	0-25	0-10	1.35-1.65	6-20	0.05-0.09	0.0-2.9	0.5-2.0	.15	.15	5	1	250
	10-27	75-100	0-25	0-10	1.35-1.65	6-20	0.05-0.12	0.0-2.9	0.0-0.5	.15	.15			
	27-60	70-90	2-28	2-12	1.50-1.65	2-20	0.03-0.08	0.0-2.9	0.0-0.5	.15	.15			
689D:														
Coloma--------------	0-12	85-100	0-25	0-10	1.35-1.65	6-20	0.05-0.09	0.0-2.9	0.5-2.0	.15	.15	5	1	250
	12-25	85-100	0-25	0-10	1.35-1.65	6-20	0.05-0.12	0.0-2.9	0.0-0.5	.15	.15			
	25-60	70-90	2-28	2-12	1.50-1.65	2-20	0.03-0.08	0.0-2.9	0.0-0.5	.15	.15			
705A:														
Buckhart------------	0-20	0-7	63-80	20-30	1.25-1.30	0.6-2	0.22-0.24	3.0-5.9	3.0-4.0	.28	.28	5	6	48
	20-58	0-7	58-75	25-35	1.30-1.35	0.6-2	0.18-0.20	3.0-5.9	0.2-1.0	.37	.37			
	58-60	0-7	66-82	18-27	1.35-1.45	0.6-2	0.20-0.22	3.0-5.9	0.0-0.5	.49	.49			
741B:														
Oakville------------	0-6	85-100	0-10	0-10	1.30-1.55	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.02	.02	5	1	250
	6-36	80-100	0-10	0-10	1.30-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15			
	36-60	85-100	0-10	0-10	1.40-1.65	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
741D:														
Oakville------------	0-5	85-100	0-10	0-10	1.30-1.55	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.02	.02	5	1	250
	5-36	80-100	0-10	0-10	1.30-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15			
	36-60	85-100	0-10	0-10	1.40-1.65	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
741F:														
Oakville------------	0-3	85-100	0-10	0-10	1.30-1.55	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.02	.02	5	2	134
	3-24	80-100	0-10	0-10	1.30-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15			
	24-60	85-100	0-10	0-10	1.40-1.65	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
764A:														
Coyne---------------	0-23	45-80	2-50	5-18	1.45-1.60	2-6	0.16-0.17	0.0-2.9	2.0-4.0	.15	.15	4	3	86
	23-42	45-80	2-50	5-18	1.40-1.60	0.6-2	0.15-0.19	0.0-2.9	0.0-1.0	.24	.24			
	42-60	10-40	35-70	18-35	1.35-1.55	0.2-0.6	0.15-0.20	3.0-5.9	0.0-0.5	.37	.37			
764B:														
Coyne---------------	0-7	35-52	30-50	8-27	1.40-1.55	0.6-2	0.15-0.19	0.0-2.9	2.0-4.0	.32	.32	4	5	56
	7-20	45-80	20-50	5-25	1.40-1.55	0.6-2	0.15-0.19	0.0-2.9	1.0-3.0	.20	.20			
	20-42	45-80	20-50	5-18	1.40-1.60	0.6-2	0.15-0.19	0.0-2.9	0.0-1.0	.24	.24			
	42-55	10-40	35-70	10-35	1.35-1.55	0.6-2	0.15-0.20	3.0-5.9	0.0-0.5	.49	.49			
	55-60	0-7	48-65	25-50	1.30-1.50	0.2-0.6	0.11-0.20	6.0-8.9	0.0-0.5	.32	.32			
767A:														
Prophetstown--------	0-16	5-30	50-80	18-27	1.10-1.30	0.6-2	0.22-0.24	0.0-2.9	4.0-6.0	.28	.28	5	4L	86
	16-40	5-30	50-80	18-27	1.20-1.50	0.6-2	0.20-0.22	0.0-2.9	0.5-1.0	.43	.43			
	40-52	5-30	50-80	10-27	1.20-1.60	0.6-2	0.20-0.22	0.0-2.9	0.0-0.2	.49	.49			
	52-60	15-50	50-80	5-20	1.40-1.65	0.6-2	0.07-0.16	0.0-2.9	0.0-0.2	.28	.28			
777A:														
Adrian--------------	0-22	---	---	0-0	0.30-0.55	0.2-6	0.35-0.45	---	55-75	---	---	2	2	134
	22-60	80-95	2-10	2-10	1.40-1.75	6-20	0.03-0.08	0.0-2.9	0.0-1.0	.02	.02			
800C:														
Psamments-----------	0-60	85-100	0-25	0-10	1.50-1.70	6-20	0.04-0.09	0.0-2.9	0.0-0.5	.02	.02	5	1	310
	60-80	85-100	0-10	0-10	1.50-1.70	6-20	0.04-0.09	0.0-2.9	0.0-0.3	.02	.02			
802B:														
Orthents------------	0-6	30-45	25-48	22-30	1.70-1.75	0.2-0.6	0.18-0.22	3.0-5.9	0.5-2.0	.43	.43	5	6	48
	6-60	30-45	25-55	22-30	1.70-1.80	0.2-0.6	0.16-0.20	3.0-5.9	0.2-1.0	.43	.43			
871B:														
Lenzburg------------	0-2	10-35	40-70	27-35	1.30-1.60	0.6-2	0.17-0.22	3.0-5.9	0.5-1.0	.32	.32	5	4L	86
	2-17	10-30	40-60	25-40	1.40-1.70	0.2-0.6	0.11-0.17	3.0-7.5	0.2-1.0	.32	.32			
	17-60	15-45	30-60	20-35	1.50-1.70	0.2-0.6	0.08-0.18	3.0-5.9	0.2-0.5	.37	.43			
871G:														
Lenzburg------------	0-3	10-35	40-70	27-35	1.30-1.60	0.6-2	0.17-0.22	3.0-5.9	0.5-4.0	.32	.32	5	4L	86
	3-24	5-30	40-70	20-35	1.40-1.70	0.2-0.6	0.11-0.17	3.0-5.9	0.2-1.0	.37	.43			
	24-60	5-45	30-65	25-40	1.40-1.70	0.2-0.6	0.08-0.18	3.0-7.5	0.2-1.0	.37	.43			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
911G:														
Timula--------------	0-10	0-7	75-89	10-18	1.30-1.60	0.6-2	0.20-0.24	0.0-2.9	1.0-2.0	.43	.43	5	5	56
	10-22	0-7	75-89	10-18	1.35-1.60	0.6-2	0.19-0.22	0.0-2.9	0.2-0.5	.43	.43			
	22-60	0-7	75-89	10-18	1.40-1.60	0.6-2	0.18-0.20	0.0-2.9	0.2-0.5	.55	.55			
Hickory-------------	0-7	15-40	35-66	19-25	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.32	.32	5	6	48
	7-46	15-45	20-58	27-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.32	.32			
	46-60	20-50	18-65	15-32	1.50-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.2	.32	.32			
913D:														
Marseilles----------	0-9	0-25	58-80	20-27	1.20-1.40	0.6-2	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	3	6	48
	9-28	0-25	43-73	27-42	1.35-1.60	0.06-0.2	0.09-0.20	3.0-5.9	0.0-1.0	.37	.37			
	28-60	---	---	---	---	0.01-0.2	---	---	---	---	---			
Hickory-------------	0-6	15-45	30-66	19-25	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.32	.32	5	6	48
	6-51	15-45	20-58	27-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.32	.32			
	51-60	20-50	18-65	15-32	1.50-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.2	.32	.32			
913D3:														
Marseilles----------	0-4	0-15	50-73	27-35	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	0.5-1.0	.28	.28	2	7	38
	4-24	0-15	43-73	27-42	1.35-1.60	0.06-0.2	0.09-0.20	3.0-5.9	0.0-1.0	.37	.37			
	24-60	---	---	---	---	0.01-0.2	---	---	---	---	---			
Hickory-------------	0-6	15-40	25-60	27-35	1.40-1.65	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.32	.32	4	6	48
	6-46	15-40	20-60	24-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.32	.32			
	46-60	20-50	20-65	15-32	1.50-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.2	.32	.32			
913F:														
Marseilles----------	0-12	5-15	58-75	20-27	1.20-1.40	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.32	.32	3	6	48
	12-18	5-15	50-71	24-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.5-1.0	.43	.43			
	18-34	0-22	33-70	25-42	1.35-1.60	0.06-0.2	0.09-0.20	3.0-5.9	0.5-1.0	.37	.37			
	34-60	---	---	---	---	0.01-0.2	---	---	---	---	---			
Hickory-------------	0-8	15-40	35-66	19-25	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.32	.32	5	6	48
	8-57	15-45	20-58	27-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.28	.32			
	57-60	20-50	18-65	15-32	1.50-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.2	.28	.32			
913F2:														
Marseilles----------	0-8	0-15	58-80	20-27	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	0.5-1.0	.28	.28	3	7	38
	8-27	0-15	43-73	27-42	1.35-1.60	0.06-0.2	0.09-0.20	3.0-5.9	0.0-1.0	.37	.37			
	27-60	---	---	---	---	0.01-0.2	---	---	---	---	---			
Hickory-------------	0-9	15-45	30-66	19-25	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.32	.32	5	6	48
	9-60	15-45	20-58	27-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.32	.32			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors Kw	Kf	T	Wind erodibility group	Wind erodibility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
917B:														
Oakville------------	0-5	85-100	0-10	0-10	1.30-1.55	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.02	.02	5	2	134
	5-30	80-100	0-10	0-10	1.30-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15			
	30-60	85-100	0-10	0-10	1.40-1.65	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Tell----------------	0-5	15-35	50-70	14-18	1.35-1.45	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	5-24	10-20	55-76	14-28	1.50-1.60	0.6-2	0.18-0.22	3.0-5.9	0.0-0.5	.37	.37			
	24-27	45-75	10-40	10-25	1.50-1.60	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.37	.37			
	27-60	75-95	2-25	2-12	1.55-1.70	6-20	0.04-0.07	0.0-2.9	0.0-0.5	.15	.15			
917C2:														
Oakville------------	0-7	85-100	0-10	0-10	1.30-1.55	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.02	.02	5	2	134
	7-51	80-100	0-10	0-10	1.30-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15			
	51-60	85-100	0-10	0-10	1.40-1.65	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Tell----------------	0-7	15-35	50-70	14-18	1.35-1.45	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	7-23	10-20	55-76	14-28	1.50-1.60	0.6-2	0.18-0.22	3.0-5.9	0.0-0.5	.37	.37			
	23-27	45-75	10-40	10-25	1.50-1.60	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.37	.37			
	27-60	75-95	2-25	2-12	1.55-1.70	6-20	0.04-0.07	0.0-2.9	0.0-0.5	.15	.15			
917D:														
Oakville------------	0-6	85-100	0-10	0-10	1.30-1.55	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.02	.02	5	2	134
	6-36	80-100	0-10	0-10	1.30-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15			
	36-60	85-100	0-10	0-10	1.40-1.65	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Tell----------------	0-5	15-35	50-70	14-18	1.35-1.45	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	5-31	10-20	55-76	14-28	1.50-1.60	0.6-2	0.18-0.22	3.0-5.9	0.0-0.5	.37	.37			
	31-38	45-75	10-40	10-25	1.50-1.60	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.37	.37			
	38-60	75-95	2-25	2-12	1.55-1.70	6-20	0.04-0.07	0.0-2.9	0.0-0.5	.15	.15			
917D2:														
Oakville------------	0-9	85-100	0-10	0-10	1.30-1.55	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.02	.02	5	2	134
	9-36	80-100	0-10	0-10	1.30-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15			
	36-60	85-100	0-10	0-10	1.40-1.65	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Tell----------------	0-8	15-35	50-70	14-18	1.35-1.45	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	8-28	10-20	55-76	14-28	1.50-1.60	0.6-2	0.18-0.22	3.0-5.9	0.0-0.5	.37	.37			
	28-32	45-75	10-40	10-25	1.50-1.60	0.6-2	0.11-0.19	0.0-2.9	0.0-0.5	.37	.37			
	32-60	75-95	2-25	2-12	1.55-1.70	6-20	0.04-0.07	0.0-2.9	0.0-0.5	.15	.15			
918D3:														
Marseilles----------	0-4	0-15	50-73	27-35	1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	0.5-1.0	.28	.28	2	7	38
	4-39	0-15	43-73	27-42	1.35-1.60	0.06-0.2	0.09-0.20	3.0-5.9	0.0-1.0	.37	.37			
	39-60	---	---	---	---	0.01-0.2	---	---	---	---	---			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
918D3:														
Atlas---------------	0-3	10-35	20-60	30-40	1.35-1.55	0.06-0.2	0.14-0.19	6.0-8.9	0.5-1.0	.28	.28	2	7	38
	3-14	10-35	20-60	35-45	1.35-1.55	0.0000-0.06	0.07-0.19	6.0-8.9	0.0-1.0	.37	.37			
	14-44	10-35	20-60	38-45	1.35-1.55	0.0000-0.06	0.07-0.19	6.0-8.9	0.0-1.0	.32	.32			
	44-60	10-35	20-60	30-45	1.35-1.60	0.06-0.2	0.07-0.18	3.0-5.9	0.0-1.0	.37	.37			
943D3:														
Seaton--------------	0-4	0-7	71-84	11-22	1.10-1.20	0.6-2	0.22-0.24	0.0-2.9	0.5-1.0	.43	.43	4	5	56
	4-39	0-7	72-81	18-27	1.15-1.30	0.6-2	0.20-0.22	0.0-2.9	0.5-1.0	.43	.43			
	39-60	0-7	74-84	11-25	1.20-1.40	0.6-2	0.20-0.22	0.0-2.9	0.2-0.5	.49	.49			
Timula--------------	0-23	0-7	75-89	10-18	1.30-1.60	0.6-2	0.20-0.24	0.0-2.9	0.5-1.0	.43	.43	4	5	56
	23-60	0-7	75-89	10-18	1.40-1.60	0.6-2	0.18-0.20	0.0-2.9	0.2-0.5	.55	.55			
943G:														
Seaton--------------	0-9	0-7	71-89	10-22	1.10-1.45	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	5	5	56
	9-60	0-7	66-81	18-27	1.20-1.60	0.6-2	0.20-0.22	0.0-2.9	0.5-1.0	.43	.43			
Timula--------------	0-28	0-7	75-89	10-18	1.30-1.60	0.6-2	0.20-0.24	0.0-2.9	1.0-2.0	.43	.43	5	5	56
	28-60	0-7	75-89	10-18	1.40-1.60	0.6-2	0.18-0.20	0.0-2.9	0.2-0.5	.55	.55			
946D2:														
Hickory-------------	0-6	15-45	30-66	19-25	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	1.0-2.0	.32	.32	5	6	48
	6-60	15-45	20-58	27-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.32	.32			
Atlas---------------	0-5	5-30	43-75	20-27	1.30-1.50	0.2-0.6	0.20-0.25	3.0-5.9	1.0-3.0	.32	.32	3	6	48
	5-16	10-35	20-60	35-45	1.35-1.55	0.0000-0.06	0.07-0.19	6.0-8.9	0.0-1.0	.37	.37			
	16-48	10-35	20-60	38-45	1.35-1.55	0.0000-0.06	0.07-0.19	6.0-8.9	0.0-1.0	.32	.32			
	48-60	10-35	20-60	25-45	1.35-1.60	0.06-0.2	0.07-0.18	3.0-5.9	0.0-1.0	.37	.37			
946D3:														
Hickory-------------	0-7	15-40	25-58	27-35	1.40-1.65	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.24	.24	4	6	48
	7-42	15-45	20-58	27-35	1.45-1.65	0.6-2	0.15-0.19	3.0-5.9	0.0-0.5	.28	.32			
	42-60	20-50	18-65	15-32	1.50-1.70	0.6-2	0.11-0.19	0.0-2.9	0.0-0.2	.28	.32			
Atlas---------------	0-6	10-35	25-60	30-40	1.35-1.55	0.06-0.2	0.14-0.19	6.0-8.9	0.5-1.0	.28	.28	2	7	38
	6-12	10-35	20-55	38-45	1.35-1.55	0.0000-0.06	0.07-0.19	6.0-8.9	0.0-1.0	.37	.37			
	12-55	10-35	20-60	38-45	1.35-1.55	0.0000-0.06	0.07-0.19	6.0-8.9	0.0-1.0	.32	.32			
	55-60	20-40	20-60	25-45	1.35-1.60	0.06-0.2	0.07-0.18	3.0-5.9	0.0-1.0	.37	.37			
957D3:														
Elco----------------	0-7	1-5	62-74	25-33	1.20-1.35	0.6-2	0.18-0.21	3.0-5.9	0.5-1.0	.43	.43	4	7	38
	7-27	0-4	61-75	23-35	1.25-1.45	0.6-2	0.18-0.21	3.0-5.9	0.0-0.5	.37	.37			
	27-39	10-35	30-65	23-35	1.40-1.60	0.2-0.6	0.16-0.20	3.0-5.9	0.0-0.2	.37	.37			
	39-60	15-35	20-60	25-45	1.45-1.70	0.06-0.6	0.14-0.20	6.0-8.9	0.0-0.2	.43	.43			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
957D3:														
Atlas---------------	0-5	10-35	20-60	30-40	1.35-1.55	0.06-0.2	0.11-0.16	6.0-8.9	0.5-1.0	.28	.28	2	6	48
	5-9	10-35	20-55	38-45	1.35-1.55	0.0000-0.06	0.07-0.19	6.0-8.9	0.0-1.0	.37	.37			
	9-39	10-35	20-60	38-45	1.35-1.55	0.0000-0.06	0.07-0.19	6.0-8.9	0.0-1.0	.32	.32			
	39-60	10-35	20-60	30-45	1.35-1.55	0.0000-0.06	0.07-0.19	6.0-8.9	0.0-1.0	.37	.37			
962D3:														
Sylvan--------------	0-8	0-7	61-73	27-32	1.25-1.45	0.6-2	0.20-0.22	3.0-5.9	0.5-1.0	.43	.43	4	7	38
	8-31	0-7	58-75	25-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.37	.37			
	31-60	0-7	66-90	10-27	1.30-1.50	0.6-2	0.20-0.22	0.0-2.9	0.0-0.5	.49	.49			
Bold----------------	0-8	0-10	72-88	12-18	1.40-1.60	0.6-2	0.21-0.24	0.0-2.9	0.5-1.0	.43	.43	4	4L	86
	8-60	0-10	72-88	12-18	1.10-1.30	0.6-2	0.20-0.24	0.0-2.9	0.0-0.5	.55	.55			
3070A:														
Beaucoup------------	0-19	0-15	50-73	27-35	1.15-1.35	0.2-0.6	0.15-0.23	3.0-5.9	5.0-6.0	.28	.28	5	7	38
	19-42	0-15	50-73	27-35	1.30-1.50	0.2-0.6	0.18-0.20	3.0-5.9	0.0-2.0	.32	.32			
	42-65	5-40	30-80	15-30	1.35-1.55	0.2-0.6	0.18-0.22	3.0-5.9	0.0-1.0	.37	.37			
3074A:														
Radford-------------	0-12	0-15	58-82	18-27	1.40-1.60	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	6	48
	12-33	0-15	58-82	18-27	1.40-1.60	0.6-2	0.20-0.22	0.0-2.9	0.0-2.0	.49	.49			
	33-60	0-22	35-71	24-35	1.35-1.55	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.32	.32			
3107+:														
Sawmill-------------	0-11	0-15	58-82	18-27	1.25-1.40	0.6-2	0.22-0.24	0.0-2.9	4.0-5.0	.32	.32	5	6	48
	11-36	2-9	59-71	27-35	1.20-1.40	0.6-2	0.21-0.23	3.0-5.9	1.0-3.0	.28	.28			
	36-53	3-25	45-72	25-35	1.30-1.45	0.6-2	0.17-0.20	3.0-5.9	0.0-2.0	.32	.32			
	53-60	5-25	40-77	18-35	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-1.0	.28	.28			
3107A:														
Sawmill-------------	0-26	2-9	56-71	27-35	1.20-1.40	0.6-2	0.21-0.23	3.0-5.9	4.0-5.0	.28	.28	5	7	38
	26-54	3-10	55-70	27-35	1.20-1.40	0.6-2	0.21-0.23	3.0-5.9	1.0-3.0	.32	.32			
	54-60	5-25	40-70	25-35	1.30-1.45	0.6-2	0.17-0.20	3.0-5.9	0.0-2.0	.32	.32			
3284A:														
Tice----------------	0-14	1-15	50-72	27-35	1.25-1.45	0.6-2	0.21-0.24	3.0-5.9	2.0-3.0	.32	.32	5	7	38
	14-39	1-15	50-75	24-35	1.30-1.50	0.6-2	0.18-0.20	3.0-5.9	0.0-1.0	.32	.32			
	39-72	1-15	55-84	15-30	1.40-1.60	0.6-2	0.11-0.18	3.0-5.9	0.0-1.0	.32	.32			
3302A:														
Ambraw--------------	0-8	5-15	50-68	27-35	1.25-1.45	0.6-2	0.15-0.19	3.0-5.9	2.0-3.0	.28	.28	5	7	38
	8-39	20-40	18-55	25-42	1.30-1.55	0.2-0.6	0.08-0.19	3.0-5.9	0.5-2.0	.28	.28			
	39-50	20-60	10-56	24-35	1.40-1.65	0.2-2	0.10-0.15	3.0-5.9	0.5-1.0	.28	.28			
	50-60	20-60	10-62	18-30	1.35-1.65	0.2-2	0.11-0.22	0.0-2.9	0.5-1.0	.28	.28			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
3400A:														
Calco	0-34	2-10	57-70	28-42	1.25-1.30	0.6-2	0.21-0.23	3.0-5.9	5.0-7.0	.28	.28	5	4L	86
	34-45	2-10	55-68	30-35	1.25-1.30	0.6-2	0.21-0.23	3.0-5.9	3.0-5.0	.32	.32			
	45-60	10-35	36-73	18-27	1.30-1.45	0.6-2	0.18-0.20	3.0-5.9	1.0-3.0	.32	.32			
3415A:														
Orion	0-7	1-15	67-89	10-18	1.20-1.30	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.43	.43	5	5	56
	7-22	2-15	67-88	10-18	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28			
	22-60	2-15	55-88	10-30	1.25-1.45	0.6-2	0.18-0.22	0.0-2.9	3.0-8.0	.32	.32			
	60-80	2-15	67-88	10-18	1.20-1.40	0.6-2	0.18-0.22	0.0-2.9	0.0-0.5	.28	.28			
7100A:														
Palms	0-28	---	---	0-0	0.25-0.45	0.2-6	0.35-0.45	---	75-99	---	---	2	2	134
	28-60	15-35	35-70	7-35	1.45-1.75	0.2-2	0.14-0.22	0.0-2.9	0.0-0.0	.32	.32			
7302A:														
Ambraw	0-20	20-45	20-53	27-35	1.30-1.55	0.6-2	0.15-0.22	3.0-5.9	2.0-3.0	.24	.24	5	6	48
	20-36	20-40	18-55	25-42	1.30-1.55	0.2-0.6	0.08-0.19	3.0-5.9	0.5-2.0	.28	.28			
	36-45	20-60	10-56	24-35	1.40-1.65	0.2-2	0.10-0.15	3.0-5.9	0.5-1.0	.28	.28			
	45-60	20-60	10-62	18-30	1.35-1.65	0.2-2	0.11-0.22	0.0-2.9	0.5-1.0	.28	.28			
7404A:														
Titus	0-22	2-9	51-63	35-40	1.30-1.50	0.06-0.2	0.18-0.22	6.0-8.9	2.0-4.0	.28	.28	5	4	86
	22-52	1-15	40-64	35-45	1.30-1.60	0.06-0.2	0.11-0.22	6.0-8.9	0.2-1.0	.32	.32			
	52-60	15-30	40-65	20-30	1.45-1.75	0.2-0.6	0.10-0.20	3.0-5.9	0.2-0.5	.49	.49			
7654A:														
Moline	0-14	1-10	40-60	35-55	1.35-1.55	0.2-0.6	0.11-0.14	9.0-25.0	2.0-4.0	.28	.28	5	4	86
	14-33	5-20	20-50	45-60	1.45-1.65	0.06-0.2	0.09-0.11	9.0-25.0	0.5-1.2	.37	.37			
	33-75	5-20	20-60	35-60	1.40-1.65	0.06-0.2	0.09-0.11	9.0-25.0	0.2-0.8	.37	.37			
	75-98	1-20	50-80	18-35	1.50-1.60	0.06-0.2	0.18-0.22	0.0-5.9	0.0-0.5	.37	.37			
7682A:														
Medway	0-19	30-50	30-50	18-27	1.20-1.45	0.6-2	0.20-0.24	0.0-2.9	1.5-4.0	.28	.28	5	6	48
	19-27	30-50	30-50	18-27	1.20-1.45	0.6-2	0.20-0.24	0.0-2.9	0.8-1.5	.28	.28			
	27-37	15-40	30-60	25-32	1.20-1.50	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.32	.32			
	37-60	15-60	15-55	15-30	1.20-1.60	0.6-6	0.08-0.15	0.0-2.9	0.0-0.5	.28	.28			
7777A:														
Adrian	0-30	---	---	0-0	0.30-0.55	0.2-6	0.35-0.45	---	55-75	---	---	2	2	134
	30-60	80-89	2-10	2-10	1.40-1.75	6-20	0.03-0.08	0.0-2.9	0.0-1.0	.02	.02			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
8107+:														
Sawmill-------------	0-8	0-15	58-82	18-27	1.25-1.40	0.6-2	0.22-0.24	0.0-2.9	4.0-5.0	.32	.32	5	6	48
	8-14	2-9	59-71	27-35	1.20-1.40	0.6-2	0.21-0.23	3.0-5.9	1.0-3.0	.28	.28			
	14-46	3-25	45-72	27-35	1.20-1.40	0.6-2	0.21-0.23	3.0-5.9	1.0-3.0	.32	.32			
	46-60	5-25	40-77	25-35	1.30-1.45	0.6-2	0.17-0.20	3.0-5.9	0.0-2.0	.32	.32			
8166A:														
Cohoctah------------	0-19	30-52	28-50	8-22	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.32	.32	5	5	56
	19-28	40-80	10-40	5-18	1.45-1.65	2-6	0.12-0.20	0.0-2.9	0.5-1.0	.24	.24			
	28-60	75-100	0-15	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.0-0.5	.02	.02			
8284A:														
Tice----------------	0-14	1-15	50-72	27-35	1.25-1.45	0.6-2	0.21-0.24	3.0-5.9	2.0-4.0	.28	.28	5	7	38
	14-80	1-15	50-75	24-35	1.30-1.50	0.6-2	0.18-0.21	3.0-5.9	0.0-1.0	.32	.32			
8302A:														
Ambraw--------------	0-9	20-45	28-50	18-27	1.30-1.55	0.6-2	0.15-0.22	3.0-5.9	2.0-3.0	.32	.32	5	6	48
	9-32	20-40	18-50	25-42	1.30-1.55	0.2-0.6	0.08-0.19	3.0-5.9	0.5-2.0	.28	.28			
	32-38	20-60	10-56	24-35	1.40-1.65	0.2-2	0.10-0.15	3.0-5.9	0.5-1.0	.28	.28			
	38-60	20-60	10-62	18-30	1.35-1.65	0.2-2	0.11-0.22	0.0-2.9	0.5-1.0	.28	.28			
8400A:														
Calco---------------	0-34	2-10	57-70	28-42	1.25-1.30	0.6-2	0.21-0.23	3.0-5.9	5.0-7.0	.28	.28	5	4L	86
	34-45	2-10	55-68	30-35	1.25-1.30	0.6-2	0.21-0.23	3.0-5.9	3.0-5.0	.32	.32			
	45-60	10-35	36-73	18-27	1.30-1.45	0.6-2	0.18-0.20	3.0-5.9	1.0-3.0	.32	.32			
8415A:														
Orion---------------	0-6	1-15	67-89	10-18	1.20-1.30	0.6-2	0.22-0.24	0.0-2.9	1.0-3.0	.37	.37	5	5	56
	6-25	2-15	67-88	10-18	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.37	.37			
	25-60	2-15	55-88	10-30	1.25-1.45	0.6-2	0.18-0.22	0.0-2.9	3.0-8.0	.37	.37			
8492A:														
Normandy------------	0-13	25-50	30-50	20-27	1.40-1.60	0.6-2	0.20-0.24	3.0-5.9	4.0-8.0	.32	.32	4	4L	86
	13-54	10-40	35-70	21-35	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.5-2.0	.49	.49			
	54-60	80-100	0-8	2-12	1.65-1.80	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.02	.02			
8499A:														
Fella---------------	0-20	0-15	50-73	27-35	1.10-1.30	0.6-2	0.21-0.23	3.0-5.9	5.0-6.0	.28	.28	5	7	38
	20-43	0-15	50-73	27-35	1.20-1.45	0.6-2	0.21-0.24	3.0-5.9	0.5-1.0	.32	.32			
	43-54	10-55	15-75	15-30	1.35-1.60	0.6-2	0.15-0.20	3.0-5.9	0.2-0.5	.32	.32			
	54-61	15-90	15-75	10-30	1.40-1.70	2-6	0.05-0.19	0.0-2.9	0.2-0.5	.24	.24			
	61-80	70-90	5-30	2-18	1.40-1.70	6-20	0.08-0.18	0.0-2.9	0.0-0.2	.15	.15			

Table 19.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
8638A:														
Muskego-------------	0-6	---	---	0-0	0.10-0.21	0.6-6	0.35-0.45	---	60-90	.10	.10	1	2	134
	6-18	---	---	0-0	0.10-0.21	0.6-6	0.35-0.45	---	60-90	.10	.10			
	18-60	4-25	40-78	18-35	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28			

Table 20.--Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
8D2:				
Hickory	0-6	4.5-7.3	14-19	0
	6-51	4.5-7.3	16-22	0
	51-60	5.1-8.4	9.0-19	0-25
8D3:				
Hickory	0-5	4.5-7.3	17-23	0
	5-30	4.5-7.3	16-22	0
	30-40	4.5-7.8	16-22	0
	40-60	5.6-8.4	5.0-15	0-25
8F:				
Hickory	0-12	4.5-7.3	14-19	0
	12-53	4.5-7.3	16-22	0
	53-58	5.1-7.8	9.0-19	0-15
	58-63	5.6-8.4	5.0-15	0-25
8F2:				
Hickory	0-12	4.5-7.3	14-19	0
	12-46	4.5-7.3	16-22	0
	46-72	5.1-7.8	9.0-19	0-25
17A:				
Keomah	0-11	5.1-7.3	10-26	0
	11-18	5.1-7.3	9.0-24	0
	18-33	5.1-6.5	28-41	0
	33-51	5.6-7.3	16-29	0
	51-89	6.1-7.3	8.0-18	0-15
19D2:				
Sylvan	0-4	5.6-7.3	14-20	0
	4-32	5.6-7.3	15-22	0
	32-60	6.6-8.4	6.0-18	0-35
19D3:				
Sylvan	0-9	5.6-7.3	17-21	0
	9-28	5.6-7.3	15-22	0
	28-60	6.6-8.4	6.0-18	0-35
19F:				
Sylvan	0-5	5.6-7.3	13-20	0
	5-10	5.6-7.3	9.0-17	0
	10-27	5.6-7.3	15-22	0
	27-80	6.6-8.4	11-17	0-35
22D2:				
Westville	0-5	5.1-6.5	13-22	0
	5-60	5.1-7.3	15-23	0
22D3:				
Westville	0-5	5.1-7.3	16-23	0
	5-60	5.1-7.3	15-23	0
43A:				
Ipava	0-20	5.6-7.3	20-27	0
	20-40	5.6-7.8	22-27	0
	40-60	6.1-8.4	12-19	0

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
45A:				
Denny-----------	0-9	5.6-7.3	18-24	0
	9-22	5.6-6.5	9.0-15	0
	22-45	5.6-6.5	21-29	0
	45-60	5.6-7.8	15-21	0
49A:				
Watseka---------	0-18	5.6-7.3	7.0-14	0
	18-60	5.1-7.3	1.0-7.0	0
51A:				
Muscatune-------	0-16	6.1-7.3	16-32	0
	16-22	5.6-7.3	16-27	0
	22-46	5.6-7.3	17-31	0
	46-60	6.6-7.8	9.0-22	0-15
67A:				
Harpster--------	0-18	7.4-8.4	26-33	10-40
	18-32	7.4-8.4	17-23	5-40
	32-60	7.4-8.4	13-22	5-40
68A:				
Sable-----------	0-17	5.6-7.3	26-33	0
	17-23	5.6-7.3	20-30	0
	23-60	5.6-7.8	15-23	0
69A:				
Milford---------	0-7	5.6-7.3	24-36	0
	7-24	5.6-7.8	22-29	0-10
	24-43	5.6-7.8	22-29	0-10
	43-60	6.6-8.4	4.0-18	0-30
81A:				
Littleton-------	0-9	5.6-7.8	11-28	0
	9-32	5.6-7.8	11-29	0
	32-60	5.6-7.8	11-23	0
86B:				
Osco------------	0-14	5.1-7.3	18-25	0
	14-55	5.1-7.3	15-23	0
	55-60	5.6-7.3	12-18	0-15
86C2:				
Osco------------	0-9	5.1-7.3	18-25	0
	9-34	5.1-7.3	15-23	0
	34-60	5.6-7.3	12-18	0-15
87A:				
Dickinson-------	0-8	5.6-7.3	15-20	0
	8-20	5.6-7.3	7.0-17	0
	20-31	5.1-6.5	9.0-17	0
	31-36	5.1-6.5	0.0-10	0
	36-60	5.6-6.5	0.0-10	0
87B:				
Dickinson-------	0-9	5.6-7.3	10-20	0
	9-17	5.6-7.3	7.0-17	0
	17-33	5.1-6.5	9.0-17	0
	33-41	5.1-6.5	0.0-10	0
	41-60	5.6-6.5	0.0-10	0

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
87B2:				
Dickinson-------	0-8	5.6-7.3	15-20	0
	8-22	5.1-6.5	7.0-17	0
	22-31	5.1-6.5	0.0-10	0
	31-60	5.6-6.5	0.0-10	0
87C2:				
Dickinson-------	0-11	5.6-7.3	15-20	0
	11-29	5.1-6.5	15-20	0
	29-35	5.1-6.5	5.0-10	0
	35-60	5.6-6.5	5.0-10	0
88A:				
Sparta----------	0-17	5.1-7.3	2.0-12	0
	17-31	5.1-7.3	1.0-6.0	0
	31-72	5.1-6.0	1.0-9.0	0
88B:				
Sparta----------	0-14	5.1-7.3	2.0-12	0
	14-47	5.1-7.3	1.0-6.0	0
	47-72	5.1-6.0	1.0-9.0	0
88C:				
Sparta----------	0-8	5.1-7.3	2.0-12	0
	8-17	5.1-7.3	2.0-12	0
	17-33	5.1-7.3	1.0-6.0	0
	33-72	5.1-6.0	1.0-9.0	0
100A:				
Palms-----------	0-24	5.1-7.8	150-180	0
	24-60	6.1-8.4	2.0-15	0-30
102A:				
La Hogue--------	0-16	5.6-7.8	12-24	0
	16-26	5.1-7.3	12-25	0
	26-36	5.1-7.3	12-25	0
	36-61	6.1-7.8	4.0-27	0-10
	61-65	6.1-7.8	8.0-21	0-10
119D2:				
Elco------------	0-6	5.6-7.3	14-22	0
	6-28	5.1-7.8	14-22	0
	28-60	5.1-7.8	15-27	0
119D3:				
Elco------------	0-5	5.6-7.3	16-22	0
	5-26	5.1-7.8	14-22	0
	26-60	5.1-7.8	15-27	0
125A:				
Selma-----------	0-23	6.1-7.8	20-28	0
	23-53	6.1-8.4	11-22	0-20
	53-60	6.6-8.4	7.0-20	0-20
148B:				
Proctor---------	0-11	5.1-7.8	17-24	0
	11-28	5.6-7.3	16-25	0
	28-33	5.6-7.3	11-21	0
	33-60	5.6-7.8	3.0-13	0-10

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
148C2:				
Proctor	0-8	5.1-7.8	15-24	0
	8-32	5.6-7.3	16-25	0
	32-48	5.6-7.3	15-23	0
	48-60	6.1-7.8	4.0-12	0-10
149A:				
Brenton	0-16	5.6-7.3	18-26	0
	16-35	5.6-7.3	15-23	0
	35-53	5.6-7.8	12-19	0-5
	53-60	5.6-8.4	9.0-19	0-20
152A:				
Drummer	0-14	5.6-7.3	26-53	0
	14-41	5.6-7.8	12-23	0
	41-47	6.1-8.4	13-21	0-20
	47-60	6.6-8.4	9.0-19	0-40
153A:				
Pella	0-23	6.1-7.8	25-30	0
	23-46	6.6-7.8	15-20	0-10
	46-50	7.4-8.4	10-20	5-30
	50-60	7.4-8.4	10-20	5-40
172A:				
Hoopeston	0-14	5.1-7.3	9.0-17	0
	14-38	5.1-7.8	7.0-13	0-5
	38-60	4.5-8.4	1.0-7.0	0-20
198A:				
Elburn	0-13	5.6-7.3	20-30	0
	13-44	5.6-7.3	15-25	0
	44-65	6.1-8.4	9.0-15	0-20
	65-80	6.1-8.4	0.0-10	0-20
199A:				
Plano	0-14	6.1-7.3	17-26	0
	14-49	5.1-7.3	15-30	0
	49-60	5.6-7.8	9.0-20	0
	60-72	5.6-8.4	6.0-13	0-20
199B:				
Plano	0-15	6.1-7.3	17-26	0
	15-45	5.1-7.3	15-30	0
	45-55	5.6-7.8	9.0-20	0
	55-72	5.6-8.4	6.0-13	0-20
199C2:				
Plano	0-8	6.1-7.3	17-26	0
	8-41	5.1-7.3	15-23	0
	41-53	5.6-7.8	9.0-20	0
	53-60	5.6-8.4	6.0-13	0-20
200A:				
Orio	0-9	4.5-7.8	8.0-15	0
	9-18	4.5-7.8	5.0-15	0
	18-35	4.5-7.8	10-20	0
	35-41	4.5-7.8	6.0-12	0
	41-60	4.5-7.8	1.0-5.0	0

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
201A:				
Gilford	0-18	5.6-7.3	6.0-20	0
	18-32	5.6-7.3	4.0-14	0
	32-60	6.6-8.4	1.0-6.0	0-30
206A:				
Thorp	0-14	5.1-7.8	20-28	0
	14-19	5.1-7.3	11-17	0
	19-43	5.1-7.3	13-22	0
	43-50	5.6-7.8	12-19	0-5
	50-65	6.1-8.4	3.0-13	0-20
212B:				
Thebes	0-9	5.1-7.3	15-20	0
	9-31	4.5-6.0	15-20	0
	31-40	5.1-6.5	15-20	0
	40-80	5.1-7.3	5.0-10	0
212D3:				
Thebes	0-9	5.1-7.3	15-20	0
	9-34	4.5-6.0	15-20	0
	34-59	5.1-6.5	15-20	0
	59-80	5.1-7.3	5.0-10	0
219A:				
Millbrook	0-14	5.1-7.8	15-24	0
	14-35	5.1-7.3	16-23	0
	35-44	5.1-7.3	11-22	0
	44-60	5.6-8.4	6.0-15	0-20
250C2:				
Velma	0-13	6.1-7.3	18-26	0
	13-45	5.6-7.3	22-32	0
	45-60	6.6-8.4	15-22	0-30
250D2:				
Velma	0-7	5.1-7.3	18-24	0
	7-45	4.5-7.3	15-23	0
	45-60	7.4-8.4	12-19	5-30
250E2:				
Velma	0-7	5.1-7.3	18-24	0
	7-43	4.5-7.3	15-23	0
	43-60	7.4-8.4	12-19	5-30
257A:				
Clarksdale	0-8	5.1-7.3	10-22	0
	8-16	5.1-7.3	9.0-18	0
	16-47	5.1-7.3	21-28	0
	47-67	6.1-8.4	12-19	0-15
	67-80	6.1-8.4	12-18	0-15
259B:				
Assumption	0-16	5.6-7.3	18-24	0
	16-35	5.1-7.3	15-23	0
	35-80	5.1-7.3	18-28	0
259C2:				
Assumption	0-8	5.6-7.3	18-24	0
	8-24	5.1-7.3	15-23	0
	24-60	5.1-7.3	15-22	0

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
259D2:				
Assumption------	0-7	5.6-7.3	18-24	0
	7-28	5.1-7.3	15-23	0
	28-60	5.1-7.3	18-28	0
261A:				
Niota-----------	0-9	5.1-7.3	14-22	0
	9-16	5.1-6.0	11-16	0
	16-27	3.6-6.0	21-35	0
	27-36	4.5-6.0	15-25	0
	36-49	5.6-7.3	7.0-15	0
	49-60	5.6-8.4	6.0-13	0-20
262A:				
Denrock---------	0-13	5.6-7.8	17-26	0
	13-36	5.1-6.0	23-40	0
	36-40	5.1-6.5	15-25	0
	40-60	6.1-7.3	3.0-10	0
274B:				
Seaton----------	0-9	5.6-7.3	8.0-19	0
	9-60	4.5-7.3	11-16	0
	60-80	5.6-8.4	6.0-15	0-35
274C2:				
Seaton----------	0-7	5.6-7.3	10-17	0
	7-47	4.5-7.3	11-16	0
	47-60	5.6-8.4	6.0-15	0-35
274D2:				
Seaton----------	0-8	5.6-7.3	10-17	0
	8-52	4.5-7.3	11-16	0
	52-60	5.6-8.4	6.0-15	0-35
275A:				
Joy-------------	0-15	5.6-7.3	13-23	0
	15-51	5.1-7.3	11-28	0
	51-60	6.1-8.4	7.0-14	0-30
277C2:				
Port Byron------	0-9	5.1-8.4	15-24	0-10
	9-48	5.6-7.3	11-17	0
	48-60	5.6-8.4	9.0-17	0-30
279A:				
Rozetta---------	0-4	5.1-7.3	10-22	0
	4-11	4.5-7.3	7.0-17	0
	11-50	4.5-6.0	16-22	0
	50-60	5.6-7.8	12-17	0-15
279B:				
Rozetta---------	0-7	5.1-7.3	10-22	0
	7-11	4.5-7.3	7.0-17	0
	11-55	4.5-6.0	16-22	0
	55-60	5.6-7.8	12-17	0-15
280B:				
Fayette---------	0-9	5.1-7.3	15-20	0
	9-39	4.5-6.5	15-20	0
	39-60	5.1-7.8	15-20	0-15

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
280C2:				
Fayette	0-8	5.1-7.3	18-25	0
	8-64	4.5-6.0	15-20	0
	64-80	5.1-7.8	15-20	0-15
280D2:				
Fayette	0-6	5.1-7.3	18-25	0
	6-48	4.5-6.0	15-20	0
	48-60	5.1-7.8	15-20	0-15
280D3:				
Fayette	0-8	5.1-7.3	25-30	0
	8-36	4.5-6.0	15-20	0
	36-60	5.1-7.8	15-20	0-15
430A:				
Raddle	0-21	5.6-7.3	12-18	0
	21-80	5.6-7.3	12-18	0
430B:				
Raddle	0-13	5.6-7.3	12-18	0
	13-60	5.6-7.3	12-18	0
457A:				
Booker	0-18	5.6-7.3	30-35	0
	18-44	5.6-7.8	28-42	0
	44-60	5.6-7.8	25-30	0-15
465A:				
Montgomery	0-17	6.1-7.8	22-41	0-5
	17-55	6.1-7.8	16-35	0-10
	55-60	7.4-8.4	14-30	5-35
485A:				
Richwood	0-14	5.6-7.3	7.0-30	0
	14-48	5.6-7.3	4.0-25	0
	48-57	5.6-7.3	2.0-15	0
	57-60	6.1-7.3	0.0-4.0	0
485B:				
Richwood	0-18	5.6-7.3	7.0-30	0
	18-46	5.6-7.3	4.0-25	0
	46-60	5.6-7.3	2.0-15	0
	60-79	6.1-7.3	0.0-4.0	0
487A:				
Joyce	0-20	5.6-7.3	15-23	0
	20-44	5.1-6.5	11-18	0
	44-47	5.1-6.5	6.0-10	0
	47-60	5.6-7.3	0.0-6.0	0
488A:				
Hooppole	0-17	7.4-8.4	15-32	5-15
	17-44	7.4-8.4	12-29	12-18
	44-60	7.4-8.4	1.0-8.0	10-15
546B:				
Keltner	0-14	5.6-7.3	18-24	0
	14-38	5.6-7.3	16-23	0
	38-40	6.6-8.4	13-20	0
	40-60	---	---	---

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
546C2:				
Keltner---------	0-11	5.6-7.3	18-24	0
	11-34	5.6-7.3	16-23	0
	34-43	6.6-8.4	13-20	0
	43-60	---	---	---
549D2:				
Marseilles------	0-5	5.1-6.5	14-22	0
	5-27	4.5-6.5	16-27	0
	27-60	---	---	---
549F:				
Marseilles------	0-10	5.1-6.5	14-22	0
	10-35	4.5-6.5	16-27	0
	35-60	---	---	---
549F2:				
Marseilles------	0-5	5.1-6.5	14-22	0
	5-12	5.1-6.5	14-22	0
	12-37	4.5-6.5	16-27	0
	37-60	---	---	---
564A:				
Waukegan--------	0-17	5.6-7.3	13-24	0
	17-30	5.1-7.3	11-18	0
	35-60	4.6-7.8	1.0-6.0	0-15
564B:				
Waukegan--------	0-13	5.6-7.3	13-24	0
	13-35	5.1-7.3	11-18	0
	35-60	4.6-7.8	1.0-6.0	0-15
564B2:				
Waukegan--------	0-9	5.6-7.3	13-24	0
	9-23	5.1-7.3	11-18	0
	23-60	5.6-7.8	0.1-6.0	0
565A:				
Tell------------	0-14	5.1-7.3	14-24	0
	14-30	5.1-6.5	11-25	0
	30-34	5.1-6.5	2.0-20	0
	34-60	5.1-6.5	0.0-7.0	0
565B:				
Tell------------	0-7	5.1-7.3	5.0-20	0
	7-28	5.1-6.5	4.0-25	0
	28-35	5.1-6.5	2.0-20	0
	35-60	5.1-6.5	0.0-7.0	0
565C2:				
Tell------------	0-6	5.1-7.3	5.0-20	0
	6-29	5.1-6.5	4.0-25	0
	29-33	5.1-6.5	2.0-20	0
	33-60	5.1-6.5	0.0-7.0	0
567D2:				
Elkhart---------	0-10	5.6-7.8	16-24	0
	10-30	5.6-8.4	15-22	0-20
	30-60	7.4-8.4	12-21	10-40

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
572A:				
Loran-----------	0-14	6.1-7.3	20-36	0
	14-39	6.1-7.3	14-25	0
	39-53	6.6-8.4	18-27	0
	53-60	---	---	---
572B:				
Loran-----------	0-12	6.1-7.3	20-36	0
	12-43	6.1-7.3	14-25	0
	43-51	6.6-8.4	18-27	0
	51-60	---	---	---
572C2:				
Loran-----------	0-9	6.1-7.3	20-36	0
	9-41	6.1-7.3	14-25	0
	41-60	6.6-8.4	18-27	0
618C2:				
Senachwine------	0-6	5.6-7.3	7.0-17	0
	6-27	5.1-7.3	9.0-20	0
	27-32	6.6-7.8	4.0-9.0	0-20
	32-60	7.4-8.4	2.0-7.0	20-45
618D2:				
Senachwine------	0-6	5.6-7.3	7.0-17	0
	6-28	5.1-7.3	9.0-20	0
	28-34	6.6-7.8	4.0-9.0	0-20
	34-60	7.4-8.4	2.0-7.0	20-45
670A:				
Aholt-----------	0-51	6.6-8.4	30-35	0-15
	51-60	6.6-8.4	25-30	0-15
671A:				
Biggsville------	0-13	5.1-8.4	19-29	0
	13-53	5.6-7.3	14-22	0
	53-80	5.6-8.4	11-20	0-35
671B:				
Biggsville------	0-13	5.1-8.4	19-29	0
	13-53	5.6-7.3	14-22	0
	53-80	5.6-8.4	11-20	0-35
672A:				
Cresent---------	0-15	5.6-7.3	8.0-22	0
	15-46	5.1-6.5	8.0-20	0
	46-60	6.1-7.8	1.0-6.0	0
672B:				
Cresent---------	0-7	5.6-7.3	8.0-22	0
	7-11	5.1-7.3	4.0-15	0
	11-41	5.1-6.5	8.0-20	0
	41-60	6.1-7.8	1.0-6.0	0
672D3:				
Cresent---------	0-7	5.6-7.3	8.0-22	0
	7-46	5.1-6.5	8.0-20	0
	46-60	6.1-7.8	1.0-6.0	0

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
675A:				
Greenbush-------	0-9	5.1-7.3	20-25	0
	9-16	5.1-7.3	20-25	0
	16-46	5.1-7.3	20-25	0
	46-60	5.6-7.3	20-25	0
675B:				
Greenbush-------	0-14	5.1-7.3	20-25	0
	14-60	4.5-7.3	25-30	0
	60-80	5.6-7.3	20-25	0
675C2:				
Greenbush-------	0-6	5.1-7.3	20-25	0
	6-46	4.5-7.3	25-30	0
	46-60	5.6-7.3	20-25	0
684B:				
Broadwell-------	0-15	5.6-7.3	18-27	0
	15-50	5.6-7.3	15-23	0
	50-55	5.6-7.3	15-20	0
	55-80	5.6-7.3	2.0-7.0	0
684C2:				
Broadwell-------	0-10	5.1-7.3	25-30	0
	10-48	5.1-6.0	25-30	0
	48-59	5.1-6.5	15-20	0
	59-70	5.1-7.3	5.0-10	0
686A:				
Parkway---------	0-16	5.1-7.3	17-24	0
	16-56	5.1-7.3	16-23	0
	56-60	6.1-8.4	12-19	0-20
686B:				
Parkway---------	0-18	5.1-7.3	17-24	0
	18-49	5.1-7.3	16-23	0
	49-60	6.1-8.4	12-19	0-20
686B2:				
Parkway---------	0-9	5.1-7.3	17-24	0
	9-40	5.1-7.3	16-23	0
	40-60	6.1-8.4	12-19	0-20
689B:				
Coloma----------	0-10	4.5-7.3	1.0-12	0
	10-27	4.5-7.3	0.1-9.0	0
	27-60	4.5-7.3	0.4-11	0
689D:				
Coloma----------	0-12	4.5-7.3	1.0-12	0
	12-25	4.5-7.3	0.1-9.0	0
	25-60	4.5-7.3	0.4-11	0
705A:				
Buckhart--------	0-20	5.6-7.3	18-25	0
	20-58	5.6-7.8	15-23	0
	58-60	6.6-7.8	12-18	0-15

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
741B:				
Oakville--------	0-6	4.5-7.3	1.0-2.0	0
	6-36	4.5-7.3	1.0-2.0	0
	36-60	5.6-7.3	1.0-2.0	0
741D:				
Oakville--------	0-5	4.5-7.3	1.0-2.0	0
	5-36	4.5-7.3	1.0-2.0	0
	36-60	5.6-7.3	1.0-2.0	0
741F:				
Oakville--------	0-3	4.5-7.3	1.0-2.0	0
	3-24	4.5-7.3	1.0-2.0	0
	24-60	5.6-7.3	1.0-2.0	0
764A:				
Coyne-----------	0-23	5.6-7.3	7.0-19	0
	23-42	5.6-7.3	3.0-13	0
	42-60	5.6-7.3	11-22	0
764B:				
Coyne-----------	0-7	5.6-7.3	10-34	0
	7-20	5.6-7.3	10-30	0
	20-42	5.6-7.3	4.0-27	0
	42-55	5.6-7.3	11-22	0
	55-60	5.1-7.3	21-28	0
767A:				
Prophetstown----	0-16	7.4-8.4	19-28	10-40
	16-40	7.4-8.4	12-23	10-40
	40-52	7.4-8.4	6.0-20	10-40
	52-60	7.4-8.4	3.0-12	10-40
777A:				
Adrian----------	0-22	5.1-7.8	125-200	0
	22-60	5.6-8.4	1.0-2.0	0-40
800C:				
Psamments-------	0-60	4.5-7.3	0.1-9.0	0
	60-80	4.5-7.3	0.1-6.0	0
802B:				
Orthents--------	0-6	5.6-7.8	10-25	0-10
	6-60	5.6-7.8	10-20	0-20
871B:				
Lenzburg--------	0-2	6.6-8.4	17-29	0-20
	2-17	7.4-8.4	15-29	0-26
	17-60	7.4-8.4	12-23	0-25
871G:				
Lenzburg--------	0-3	6.6-8.4	17-29	0-20
	3-24	7.4-8.4	15-29	0-25
	24-60	7.4-8.4	12-23	0-26
911G:				
Timula----------	0-10	6.1-7.8	8.0-15	0-5
	10-22	6.1-7.8	7.0-13	0-5
	22-60	7.4-8.4	6.0-12	5-35

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
911G:				
Hickory---------	0-7	4.5-7.3	14-19	0
	7-46	4.5-7.3	16-22	0
	46-60	5.1-8.4	9.0-19	0-15
913D:				
Marseilles------	0-9	5.1-6.5	14-22	0
	9-28	4.5-6.5	16-27	0
	28-60	---	---	---
Hickory---------	0-6	4.5-7.3	14-19	0
	6-51	4.5-6.0	16-22	0
	51-60	5.1-8.4	9.0-19	0-15
913D3:				
Marseilles------	0-4	5.1-6.5	17-23	0
	4-24	4.5-6.5	16-27	0
	24-60	---	---	---
Hickory---------	0-6	4.5-7.3	17-23	0
	6-46	4.5-6.0	16-22	0
	46-60	5.1-8.4	9.0-19	0-15
913F:				
Marseilles------	0-12	5.1-6.5	14-22	0
	12-18	5.6-6.5	15-23	0
	18-34	4.5-6.5	16-27	0
	34-60	---	---	---
Hickory---------	0-8	4.5-7.3	14-19	0
	8-57	4.5-7.3	16-22	0
	57-60	5.1-8.4	9.0-19	0-15
913F2:				
Marseilles------	0-8	5.1-6.5	17-23	0
	8-27	4.5-6.5	16-27	0
	27-60	---	---	---
Hickory---------	0-9	4.5-7.3	14-19	0
	9-60	4.5-6.0	16-22	0
917B:				
Oakville--------	0-5	4.5-7.3	1.0-2.0	0
	5-30	4.5-7.3	1.0-2.0	0
	30-60	5.6-7.3	1.0-2.0	0
Tell------------	0-5	5.1-7.3	5.0-20	0
	5-24	5.1-6.5	4.0-25	0
	24-27	5.1-6.5	2.0-20	0
	27-60	5.1-6.5	0.0-7.0	0
917C2:				
Oakville--------	0-7	4.5-7.3	1.0-2.0	0
	7-51	4.5-7.3	1.0-2.0	0
	51-60	5.6-7.3	1.0-2.0	0
Tell------------	0-7	5.1-7.3	5.0-20	0
	7-23	5.1-6.5	4.0-25	0
	23-27	5.1-6.5	2.0-20	0
	27-60	5.1-6.5	0.0-7.0	0

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
917D:				
Oakville	0-6	4.5-7.3	1.0-2.0	0
	6-36	4.5-7.3	1.0-2.0	0
	36-60	5.6-7.3	1.0-2.0	0
Tell	0-5	5.1-7.3	5.0-20	0
	5-31	5.1-6.5	4.0-25	0
	31-38	5.1-6.5	2.0-20	0
	38-60	5.1-6.5	0.0-7.0	0
917D2:				
Oakville	0-9	4.5-7.3	1.0-2.0	0
	9-36	4.5-7.3	1.0-2.0	0
	36-60	5.6-7.3	1.0-2.0	0
Tell	0-8	5.1-7.3	5.0-20	0
	8-28	5.1-6.5	4.0-25	0
	28-32	5.1-6.5	2.0-20	0
	32-60	5.1-6.5	0.0-7.0	0
918D3:				
Marseilles	0-4	5.1-6.5	17-23	0
	4-39	4.5-6.5	16-27	0
	39-60	---	---	---
Atlas	0-3	4.5-7.3	19-26	0
	3-14	4.5-7.3	21-29	0
	14-44	4.5-7.8	18-29	0-25
	44-60	6.1-7.8	12-20	0-25
943D3:				
Seaton	0-4	5.6-7.3	10-17	0
	4-39	4.5-7.3	11-16	0
	39-60	5.6-8.4	9.0-15	0-25
Timula	0-23	6.1-7.8	8.0-15	0-5
	23-60	7.4-8.4	6.0-12	5-35
943G:				
Seaton	0-9	5.6-7.3	8.0-19	0
	9-60	4.5-7.3	11-16	0
Timula	0-28	6.1-7.8	8.0-15	0-5
	28-60	7.4-8.4	6.0-12	5-35
946D2:				
Hickory	0-6	4.5-7.3	14-19	0
	6-60	4.5-6.0	16-22	0
Atlas	0-5	4.5-7.3	14-22	0
	5-16	4.5-7.3	21-29	0
	16-48	4.5-7.8	18-29	0-25
	48-60	6.1-7.8	12-20	0-25
946D3:				
Hickory	0-7	4.5-7.3	17-23	0
	7-42	4.5-7.3	16-22	0
	42-60	5.1-8.4	9.0-19	0-15

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
946D3:				
Atlas-----------	0-6	4.5-7.3	19-26	0
	6-12	4.5-7.3	21-29	0
	12-55	4.5-7.8	18-29	0-25
	55-60	6.1-7.8	12-20	0-25
957D3:				
Elco------------	0-7	5.6-7.3	16-22	0
	7-27	5.1-7.8	14-22	0
	27-39	5.1-7.8	14-21	0
	39-60	5.1-7.8	15-27	0-10
Atlas-----------	0-5	4.5-7.3	19-28	0
	5-9	4.5-7.3	21-29	0
	9-39	4.5-7.8	18-29	0-25
	39-60	4.5-7.8	18-29	0-25
962D3:				
Sylvan----------	0-8	5.6-7.3	17-21	0
	8-31	5.6-7.3	15-22	0
	31-60	6.6-8.4	6.0-18	0-35
Bold------------	0-8	7.4-8.4	6.0-15	10-40
	8-60	7.4-8.4	5.0-12	10-50
3070A:				
Beaucoup--------	0-19	5.6-7.8	26-33	0
	19-42	5.6-7.8	16-25	0
	42-65	5.6-7.8	9.0-20	0-5
3074A:				
Radford---------	0-12	5.6-7.8	15-24	0
	12-33	6.1-7.8	11-20	0
	33-60	6.1-7.8	14-23	0-20
3107+:				
Sawmill---------	0-11	6.1-7.8	19-26	0
	11-36	6.1-7.8	17-27	0
	36-53	6.1-7.8	16-25	0-10
	53-60	6.1-8.4	11-22	0-30
3107A:				
Sawmill---------	0-26	6.1-7.8	24-31	0
	26-54	6.1-7.8	17-27	0
	54-60	6.1-7.8	16-25	0-10
3284A:				
Tice------------	0-14	6.1-7.8	20-27	0
	14-39	5.6-7.8	16-23	0
	39-72	5.6-7.8	9.0-20	0-20
3302A:				
Ambraw----------	0-8	5.6-7.3	20-27	0
	8-39	5.1-7.3	19-29	0
	39-50	5.1-7.3	15-23	0
	50-60	5.6-8.4	11-19	0
3400A:				
Calco-----------	0-34	7.4-8.4	36-41	5-30
	34-45	7.4-8.4	36-41	5-30
	45-60	7.4-8.4	36-41	5-30

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
3415A:				
Orion	0-7	5.6-7.8	7.0-20	0
	7-22	5.6-7.8	7.0-20	0
	22-60	5.6-7.8	10-35	0
	60-80	5.6-7.8	5.0-15	0
7100A:				
Palms	0-28	5.1-7.8	150-180	0
	28-60	6.1-8.4	2.0-15	0-30
7302A:				
Ambraw	0-20	5.6-7.3	15-27	0
	20-36	5.1-7.3	19-29	0
	36-45	5.1-7.3	15-23	0
	45-60	5.6-8.4	11-19	0
7404A:				
Titus	0-22	6.1-7.3	25-32	0
	22-52	6.1-7.8	21-29	0
	52-60	6.1-7.8	12-19	0-5
7654A:				
Moline	0-14	6.1-7.5	32-67	0-5
	14-33	6.1-7.8	37-62	0-10
	33-75	6.1-7.8	28-60	0-10
	75-98	7.4-8.4	14-35	5-35
7682A:				
Medway	0-19	6.1-7.8	20-35	0
	19-27	6.1-7.8	13-28	0
	27-37	6.1-8.4	21-34	0-5
	37-60	6.1-8.4	2.0-18	0-20
7777A:				
Adrian	0-30	5.1-7.8	125-200	0
	30-60	5.6-8.4	1.0-2.0	0-40
8107+:				
Sawmill	0-8	6.1-7.8	19-26	0
	8-14	6.1-7.8	17-27	0
	14-46	6.1-7.8	17-27	0
	46-60	6.1-7.8	16-25	0-10
8166A:				
Cohoctah	0-19	6.1-7.8	10-20	0
	19-28	6.1-8.0	5.0-20	0
	28-60	6.1-8.0	1.0-10	0
8284A:				
Tice	0-14	6.1-7.8	20-27	0
	14-80	5.1-7.3	16-23	0
8302A:				
Ambraw	0-9	5.6-7.3	15-27	0
	9-32	5.1-7.3	19-29	0
	32-38	5.1-7.3	15-23	0
	38-60	5.6-8.4	11-19	0
8400A:				
Calco	0-34	7.4-8.4	36-41	5-30
	34-45	7.4-8.4	36-41	5-30
	45-60	7.4-8.4	36-41	5-30

Table 20.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Soil reaction	Cation-exchange capacity	Calcium carbonate
	In	pH	meq/100 g	Pct
8415A:				
Orion-----------	0-6	5.6-7.8	7.0-20	0
	6-25	5.6-7.8	7.0-20	0
	25-60	5.6-7.8	10-35	0
8492A:				
Normandy--------	0-13	7.4-8.4	15-32	5-15
	13-54	7.4-8.4	12-29	12-18
	54-60	7.4-8.4	1.0-8.0	10-15
8499A:				
Fella-----------	0-20	6.1-7.8	26-33	0-10
	20-43	6.6-7.8	16-22	0-20
	43-54	7.4-8.4	9.0-19	10-35
	54-61	7.4-8.4	5.0-19	10-35
	61-80	7.4-8.4	5.0-19	10-35
8638A:				
Muskego---------	0-6	5.6-7.3	140-180	0
	6-18	5.6-7.3	150-190	0
	18-60	6.6-8.4	10-45	60-80

Table 21.--Water Features

(Depths of layers are in feet. 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	Hydro-logic group	Month	Water table depth: Upper limit	Water table depth: Lower limit	Kind of water table	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
8D2, 8D3, 8F, 8F2:										
Hickory--------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
17A:										
Keomah----------	C									
		Jan-May	0.5-2.0	>6.0	Apparent	---	---	---	---	---
19D2, 19D3, 19F:										
Sylvan----------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
22D2, 22D3:										
Westville-------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
43A:										
Ipava-----------	B									
		Jan-May	1.0-3.0	>6.0	Apparent	---	---	---	---	---
45A:										
Denny-----------	D									
		Jan-May	0.0	>6.0	Apparent	0.0-1.0	Brief	Frequent	---	---
49A:										
Watseka---------	B									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	---	---
51A:										
Muscatune-------	B									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	---	---
67A:										
Harpster--------	B									
		Jan-May	0.5-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---
68A:										
Sable-----------	B/D									
		Jan-May	0.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---
69A:										
Milford---------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---
81A:										
Littleton-------	B									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	---	---
86B, 86C2:										
Osco------------	B									
		Feb-Mar	4.0-6.0	>6.0	Apparent	---	---	---	---	---
87A, 87B, 87B2, 87C2:										
Dickinson------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---

Table 21.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table depth: Upper limit	Water table depth: Lower limit	Kind of water table	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
88A, 88B, 88C:										
Sparta----------	A									
		All months	>6.0	>6.0	---	---	---	---	---	---
100A:										
Palms-----------	A/D									
		Jan-May	0.0	>6.0	Apparent	0.0-1.0	Brief	Occasional	---	---
		Nov-Dec	0.0	>6.0	Apparent	---	---	---	---	---
102A:										
La Hogue--------	B									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	---	---
119D2, 119D3:										
Elco------------	B									
		Feb-Apr	2.0-3.5	2.8-4.5	Perched	---	---	---	---	---
125A:										
Selma-----------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---
148B, 148C2:										
Proctor---------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
149A:										
Brenton---------	B									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	---	---
152A:										
Drummer---------	B									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---
153A:										
Pella-----------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---
172A:										
Hoopeston-------	B									
		Jan-May	1.0-2.5	>6.0	Apparent	---	---	---	---	---
198A:										
Elburn----------	B									
		Jan-May	1.0-3.0	>6.0	Apparent	---	---	---	---	---
199A, 199B, 199C2:										
Plano----------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
200A:										
Orio------------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Frequent	---	---
201A:										
Gilford---------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---
206A:										
Thorp-----------	C									
		Jan-May	0.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---

Table 21.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table depth: Upper limit	Water table depth: Lower limit	Kind of water table	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
212B:										
Thebes----------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
212D3:										
Thebes----------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
219A:										
Millbrook-------	B									
		Jan-May	0.5-2.0	>6.0	Apparent	---	---	---	---	---
250C2, 250D2, 250E2:										
Velma----------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
257A:										
Clarksdale------	C									
		Jan-May	0.5-2.0	>6.0	Apparent	---	---	---	---	---
259B, 259C2, 259D2:										
Assumption-----	B									
		Feb-Apr	2.0-3.5	2.8-4.5	Perched	---	---	---	---	---
261A:										
Niota-----------	D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Frequent	---	---
262A:										
Denrock---------	D									
		Jan-May	1.0-2.0	1.5-3.0	Perched	---	---	---	---	---
274B, 274C2, 274D2:										
Seaton---------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
275A:										
Joy-------------	B									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	---	---
277C2:										
Port Byron------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
279A, 279B:										
Rozetta---------	B									
		Feb-Apr	4.0-6.0	>6.0	Apparent	---	---	---	---	---
280B, 280C2, 280D2, 280D3:										
Fayette--------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
430A, 430B:										
Raddle----------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---

Table 21.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table depth: Upper limit	Water table depth: Lower limit	Kind of water table	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
457A:										
Booker----------	D									
		Jan-May	0.0	>6.0	Apparent	0.0-0.5	Brief	Frequent	---	---
465A:										
Montgomery------	D									
		Jan-May	0.0	>6.0	Apparent	0.0-1.0	Brief	Frequent	---	---
485A, 485B:										
Richwood--------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
487A:										
Joyce-----------	B									
		Jan-May	1.0-2.5	>6.0	Apparent	---	---	---	---	---
488A:										
Hooppole--------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	---	---	---	---	---
546B, 546C2:										
Keltner---------	B									
		Feb-Apr	2.0-3.0	3.5-5.5	Perched	---	---	---	---	---
549D2, 549F, 549F2:										
Marseilles-----	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
564A, 564B, 564B2:										
Waukegan-------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
565A, 565B, 565C2:										
Tell-----------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
567D2:										
Elkhart---------	B									
		Feb-Apr	4.0-6.0	>6.0	Apparent	---	---	---	---	---
572A, 572B, 572C2:										
Loran----------	B									
		Feb-Apr	1.0-3.0	2.0-5.5	Perched	---	---	---	---	---
618C2, 618D2:										
Senachwine------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
670A:										
Aholt-----------	D									
		Jan-May	0.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---
671A, 671B:										
Biggsville------	B									
		Feb-Apr	4.0-6.0	>6.0	Apparent	---	---	---	---	---

Table 21.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table depth: Upper limit	Water table depth: Lower limit	Kind of water table	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
672A, 672B, 672D3:										
Cresent--------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
675A, 675B, 675C2:										
Greenbush------	B									
		Feb-Apr	4.0-6.0	>6.0	Apparent	---	---	---	---	---
684B, 684C2:										
Broadwell-------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
686A, 686B, 686B2:										
Parkway--------	B									
		Feb-Apr	4.0-6.0	>6.0	Apparent	---	---	---	---	---
689B, 689D:										
Coloma----------	A									
		All months	>6.0	>6.0	---	---	---	---	---	---
705A:										
Buckhart--------	B									
		Feb-Apr	2.0-3.5	>6.0	Apparent	---	---	---	---	---
741B, 741D, 741F:										
Oakville--------	A									
		All months	>6.0	>6.0	---	---	---	---	---	---
764A, 764B:										
Coyne-----------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
767A:										
Prophetstown----	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	---	---
777A:										
Adrian----------	A/D									
		Nov-June	0.0-1.0	>6.0	Apparent	0.0-1.0	Brief	Occasional	---	---
800C:										
Psamments-------	A									
		All months	>6.0	>6.0	---	---	---	---	---	---
802B:										
Orthents--------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
871B, 871G:										
Lenzburg--------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
911G:										
Timula----------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
Hickory---------	B									
		All months	>6.0	>6.0	---	---	---	---	---	---

Table 21.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table depth: Upper limit	Water table depth: Lower limit	Kind of water table	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
913D, 913D3, 913F, 913F2:										
Marseilles	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
Hickory	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
917B, 917C2, 917D, 917D2:										
Oakville	A									
		All months	>6.0	>6.0	---	---	---	---	---	---
Tell	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
918D3:										
Marseilles	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
Atlas	D									
		Jan-May	0.5-2.0	2.0-4.0	Perched	---	---	---	---	---
943D3, 943G:										
Seaton	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
Timula	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
946D2, 946D3:										
Hickory	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
Atlas	D									
		Jan-May	0.5-2.0	2.0-4.0	Perched	---	---	---	---	---
957D3:										
Elco	B									
		Feb-Apr	2.0-3.5	2.8-4.5	Perched	---	---	---	---	---
Atlas	D									
		Jan-May	0.5-2.0	2.0-4.0	Perched	---	---	---	---	---
962D3:										
Sylvan	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
Bold	B									
		All months	>6.0	>6.0	---	---	---	---	---	---
3070A:										
Beaucoup	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Frequent	Brief	Frequent
		June	---	---	---	---	---	---	Brief	Frequent
		Nov-Dec	---	---	---	---	---	---	Brief	Frequent
3074A:										
Radford	B									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	Brief	Frequent
		June	---	---	---	---	---	---	Brief	Frequent
		Nov-Dec	---	---	---	---	---	---	Brief	Frequent

Table 21.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table depth: Upper limit	Water table depth: Lower limit	Kind of water table	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
3107+, 3107A:										
Sawmill----------	B/D									
		Jan-May	0.0-2.0	>6.0	Apparent	---	---	---	Brief	Frequent
		June	---	---	---	---	---	---	Brief	Frequent
		Nov-Dec	---	---	---	---	---	---	Brief	Frequent
3284A:										
Tice------------	B									
		Jan-May	0.5-2.0	>6.0	Apparent	---	---	---	Brief	Frequent
		June	---	---	---	---	---	---	Brief	Frequent
		Nov-Dec	---	---	---	---	---	---	Brief	Frequent
3302A:										
Ambraw----------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Very brief	Occasional	Brief	Frequent
		June	---	---	---	0.0-0.5	Very brief	Occasional	Brief	Frequent
		Nov-Dec	---	---	---	---	---	---	Brief	Frequent
3400A:										
Calco-----------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Very brief	Occasional	Brief	Frequent
		June	---	---	---	---	---	---	Brief	Frequent
		Nov-Dec	---	---	---	---	---	---	Brief	Frequent
3415A:										
Orion-----------	C									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	Brief	Frequent
		June	---	---	---	---	---	---	Brief	Frequent
		Nov-Dec	---	---	---	---	---	---	Brief	Frequent
7100A:										
Palms-----------	A/D									
		Nov-June	0.0-1.0	>6.0	Apparent	0.0-1.0	Brief	Occasional	Very brief	Rare
7302A:										
Ambraw----------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	Very brief	Rare
		June	---	---	---	---	---	---	Very brief	Rare
		Nov-Dec	---	---	---	---	---	---	Very brief	Rare
7404A:										
Titus-----------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	Very brief	Rare
		June	---	---	---	---	---	---	Very brief	Rare
		Nov-Dec	---	---	---	---	---	---	Very brief	Rare
7654A:										
Moline----------	D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-1.0	Brief	Frequent	Very brief	Rare
		June	---	---	---	---	---	---	Very brief	Rare
		Nov-Dec	---	---	---	---	---	---	Very brief	Rare
7682A:										
Medway----------	B									
		Nov-Jan	---	---	---	---	---	---	Very brief	Rare
		Feb-Apr	1.5-3.0	>6.0	Apparent	---	---	---	Very brief	Rare
		May-June	---	---	---	---	---	---	Very brief	Rare
7777A:										
Adrian----------	A/D									
		Nov-June	0.0-1.0	>6.0	Apparent	0.0-1.0	Brief	Occasional	Very brief	Rare

Table 21.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table depth: Upper limit	Water table depth: Lower limit	Kind of water table	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
8107+:										
Sawmill---------	B/D									
		Jan-May	0.0-2.0	>6.0	Apparent	---	---	---	Brief	Occasional
		June	---	---	---	---	---	---	Brief	Occasional
		Nov-Dec	---	---	---	---	---	---	Brief	Occasional
8166A:										
Cohoctah--------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	Brief	Occasional
		June	---	---	---	---	---	---	Brief	Occasional
		Nov-Dec	---	---	---	---	---	---	Brief	Occasional
8284A:										
Tice------------	B									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	Brief	Occasional
		June	---	---	---	---	---	---	Brief	Occasional
		Nov-Dec	---	---	---	---	---	---	Brief	Occasional
8302A:										
Ambraw----------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	Brief	Occasional
		June	---	---	---	---	---	---	Brief	Occasional
		Nov-Dec	---	---	---	---	---	---	Brief	Occasional
8400A:										
Calco-----------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	Brief	Occasional
		June	---	---	---	---	---	---	Brief	Occasional
		Nov-Dec	---	---	---	---	---	---	Brief	Occasional
8415A:										
Orion-----------	C									
		Jan-May	1.0-2.0	>6.0	Apparent	---	---	---	Brief	Occasional
		June	---	---	---	---	---	---	Brief	Occasional
		Nov-Dec	---	---	---	---	---	---	Brief	Occasional
8492A:										
Normandy--------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	---	---	---	Brief	Occasional
		June	---	---	---	---	---	---	Brief	Occasional
		Nov-Dec	---	---	---	---	---	---	Brief	Occasional
8499A:										
Fella-----------	B/D									
		Jan-May	0.0-1.0	>6.0	Apparent	0.0-0.5	Brief	Occasional	Brief	Occasional
		June	---	---	---	---	---	---	Brief	Occasional
		Nov-Dec	---	---	---	---	---	---	Brief	Occasional
8638A:										
Muskego---------	A/D									
		Nov-June	0.0-1.0	>6.0	Apparent	---	---	---	Brief	Occasional

Table 22.--Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
8D2, 8D3, 8F, 8F2:							
Hickory	---	---	---	---	Moderate	Moderate	Moderate
17A:							
Keomah	---	---	---	---	High	High	Moderate
19D2, 19D3, 19F:							
Sylvan	---	---	---	---	High	Moderate	Moderate
22D2, 22D3:							
Westville	---	---	---	---	Moderate	Moderate	Moderate
43A:							
Ipava	---	---	---	---	High	High	Moderate
45A:							
Denny	---	---	---	---	High	High	Moderate
49A:							
Watseka	---	---	---	---	Moderate	Low	High
51A:							
Muscatune	---	---	---	---	High	High	Moderate
67A:							
Harpster	---	---	---	---	High	High	Low
68A:							
Sable	---	---	---	---	High	High	Low
69A:							
Milford	---	---	---	---	High	High	Low
81A:							
Littleton	---	---	---	---	High	High	Low
86B, 86C2:							
Osco	---	---	---	---	High	Moderate	Moderate
87A, 87B, 87B2, 87C2:							
Dickinson	---	---	---	---	Moderate	Low	Moderate
88A, 88B, 88C:							
Sparta	---	---	---	---	Low	Low	Moderate
100A:							
Palms	---	---	2-4	25-32	High	High	Moderate
102A:							
La Hogue	---	---	---	---	High	High	Moderate
119D2, 119D3:							
Elco	---	---	---	---	High	High	Moderate
125A:							
Selma	---	---	---	---	High	High	Low
148B, 148C2:							
Proctor	---	---	---	---	High	Moderate	Moderate

Table 22.--Soil Features--Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In	In			
149A:							
Brenton	---	---	---	---	High	High	Moderate
152A:							
Drummer	---	---	---	---	High	High	Moderate
153A:							
Pella	---	---	---	---	High	High	Low
172A:							
Hoopeston	---	---	---	---	High	Low	Moderate
198A:							
Elburn	---	---	---	---	High	High	Moderate
199A, 199B, 199C2:							
Plano	---	---	---	---	High	Moderate	Low
200A:							
Orio	---	---	---	---	High	High	Moderate
201A:							
Gilford	---	---	---	---	High	High	Moderate
206A:							
Thorp	---	---	---	---	High	High	Moderate
212B, 212D3:							
Thebes	---	---	---	---	High	Moderate	Moderate
219A:							
Millbrook	---	---	---	---	High	High	Moderate
250C2, 250D2, 250E2:							
Velma	---	---	---	---	High	High	High
257A:							
Clarksdale	---	---	---	---	High	High	Moderate
259B, 259C2, 259D2:							
Assumption	---	---	---	---	High	High	Moderate
261A:							
Niota	---	---	---	---	High	High	High
262A:							
Denrock	---	---	---	---	High	High	Moderate
274B, 274C2, 274D2:							
Seaton	---	---	---	---	High	Low	Moderate
275A:							
Joy	---	---	---	---	High	High	Moderate
277C2:							
Port Byron	---	---	---	---	High	Low	Moderate
279A, 279B:							
Rozetta	---	---	---	---	High	Moderate	Moderate
280B, 280C2, 280D2, 280D3:							
Fayette	---	---	---	---	High	Moderate	Moderate

Table 22.--Soil Features--Continued

Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
430A, 430B:							
Raddle	---	---	---	---	High	Moderate	Moderate
457A:							
Booker	---	---	---	---	Moderate	High	Moderate
465A:							
Montgomery	---	---	---	---	High	High	Low
485A, 485B:							
Richwood	---	---	---	---	High	Low	Low
487A:							
Joyce	---	---	---	---	High	High	Moderate
488A:							
Hooppole	---	---	---	---	High	High	Low
546B, 546C2:							
Keltner	Bedrock (paralithic)	40-60	---	---	High	High	Moderate
549D2, 549F, 549F2:							
Marseilles	Bedrock (paralithic)	20-40	---	---	High	High	Moderate
564A, 564B, 564B2:							
Waukegan	---	---	---	---	Low	Low	Moderate
565A, 565B, 565C2:							
Tell	---	---	---	---	High	Moderate	Moderate
567D2:							
Elkhart	---	---	---	---	High	Moderate	Moderate
572A, 572B, 572C2:							
Loran	Bedrock (paralithic)	40-60	---	---	High	High	Low
618C2, 618D2:							
Senachwine	---	---	---	---	Moderate	Moderate	Moderate
670A:							
Aholt	---	---	---	---	Moderate	High	Low
671A, 671B:							
Biggsville	---	---	---	---	High	Low	Moderate
672A, 672B, 672D3:							
Cresent	---	---	---	---	Moderate	Moderate	Moderate
675A, 675B, 675C2:							
Greenbush	---	---	---	---	High	Moderate	Moderate
684B, 684C2:							
Broadwell	---	---	---	---	High	Moderate	Moderate
686A, 686B, 686B2:							
Parkway	---	---	---	---	High	Moderate	Moderate
689B, 689D:							
Coloma	---	---	---	---	Low	Low	Moderate

Table 22.--Soil Features--Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In	In			
705A:							
Buckhart	---	---	---	---	High	Moderate	Moderate
741B, 741D, 741F:							
Oakville	---	---	---	---	Low	Low	Moderate
764A, 764B:							
Coyne	---	---	---	---	Moderate	Moderate	Moderate
767A:							
Prophetstown	---	---	---	---	High	High	Low
777A:							
Adrian	---	---	6-18	29-33	High	High	Moderate
800C.							
Psamments							
802B:							
Orthents	---	---	---	---	Moderate	Moderate	Moderate
871B, 871G:							
Lenzburg	---	---	---	---	Moderate	Moderate	Low
911G:							
Timula	---	---	---	---	High	Low	Low
Hickory	---	---	---	---	Moderate	Moderate	Moderate
913D, 913D3, 913F, 913F2:							
Marseilles	Bedrock (paralithic)	20-40	---	---	High	High	Moderate
Hickory	---	---	---	---	Moderate	Moderate	Moderate
917B, 917C2, 917D, 917D2:							
Oakville	---	---	---	---	Low	Low	Moderate
Tell	---	---	---	---	High	Moderate	Moderate
918D3:							
Marseilles	Bedrock (paralithic)	20-40	---	---	High	High	Moderate
Atlas	---	---	---	---	High	High	Moderate
943D3, 943G:							
Seaton	---	---	---	---	High	Low	Moderate
Timula	---	---	---	---	High	Low	Low
946D2, 946D3:							
Hickory	---	---	---	---	Moderate	Moderate	Moderate
Atlas	---	---	---	---	High	High	Moderate
957D3:							
Elco	---	---	---	---	High	High	Moderate
Atlas	---	---	---	---	High	High	Moderate

Table 22.--Soil Features--Continued

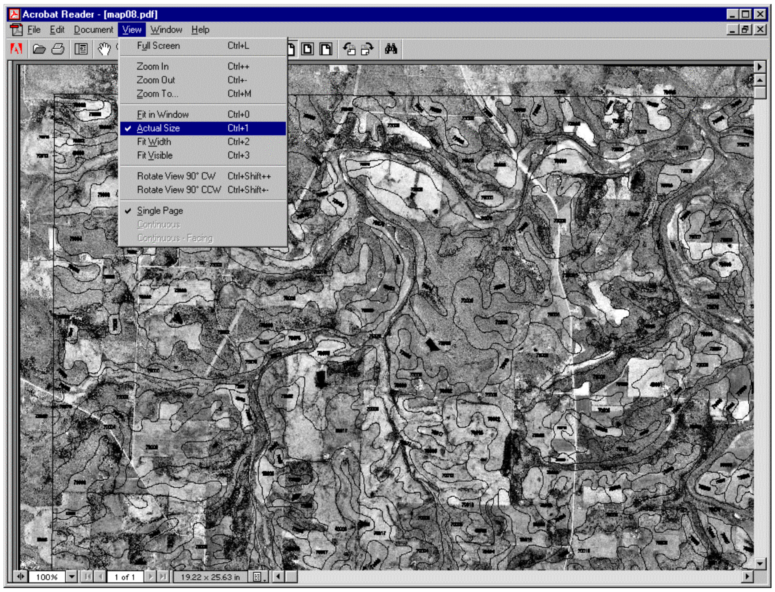
Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In	In			
962D3:							
Sylvan	---	---	---	---	High	Moderate	Moderate
Bold	---	---	---	---	High	Low	Low
3070A:							
Beaucoup	---	---	---	---	High	High	Low
3074A:							
Radford	---	---	---	---	High	High	Moderate
3107+, 3107A:							
Sawmill	---	---	---	---	High	High	Low
3284A:							
Tice	---	---	---	---	High	High	Low
3302A:							
Ambraw	---	---	---	---	High	High	Moderate
3400A:							
Calco	---	---	---	---	High	High	Low
3415A:							
Orion	---	---	---	---	High	High	Low
7100A:							
Palms	---	---	2-4	25-32	High	High	Moderate
7302A:							
Ambraw	---	---	---	---	High	High	Moderate
7404A:							
Titus	---	---	---	---	High	High	Low
7654A:							
Moline	---	---	---	---	High	High	Low
7682A:							
Medway	---	---	---	---	High	High	Low
7777A:							
Adrian	---	---	6-18	29-33	High	High	Moderate
8107+:							
Sawmill	---	---	---	---	High	High	Low
8166A:							
Cohoctah	---	---	---	---	High	High	Low
8284A:							
Tice	---	---	---	---	High	High	Low
8302A:							
Ambraw	---	---	---	---	High	High	Moderate
8400A:							
Calco	---	---	---	---	High	High	Low
8415A:							
Orion	---	---	---	---	High	High	Low

Table 22.--Soil Features--Continued

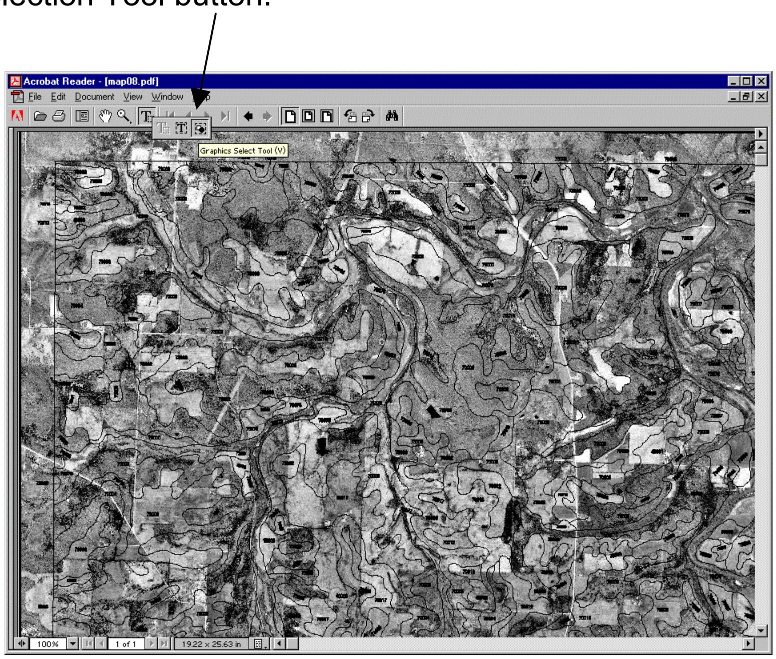
Map symbol and soil name	Restrictive layer		Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Initial	Total		Uncoated steel	Concrete
		In	In	In			
8492A:							
Normandy	---	---	---	---	High	High	Low
8499A:							
Fella	---	---	---	---	High	High	Low
8638A:							
Muskego	---	---	---	35-45	High	Moderate	Moderate

Printing Soil Survey Maps

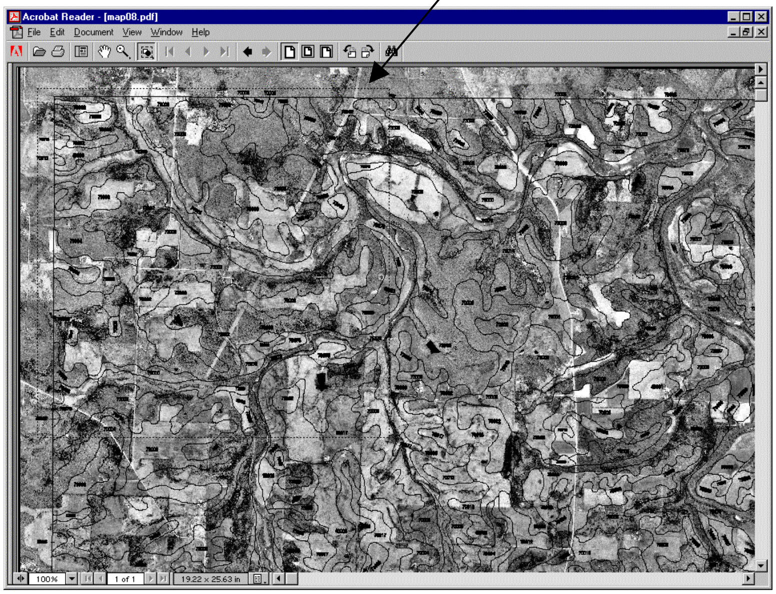
The soil survey maps were made at a scale of 1:12000 and were designed to be used at that scale. To print the maps at 1:12000 scale, set the view to Actual Size from the View pull down menu.



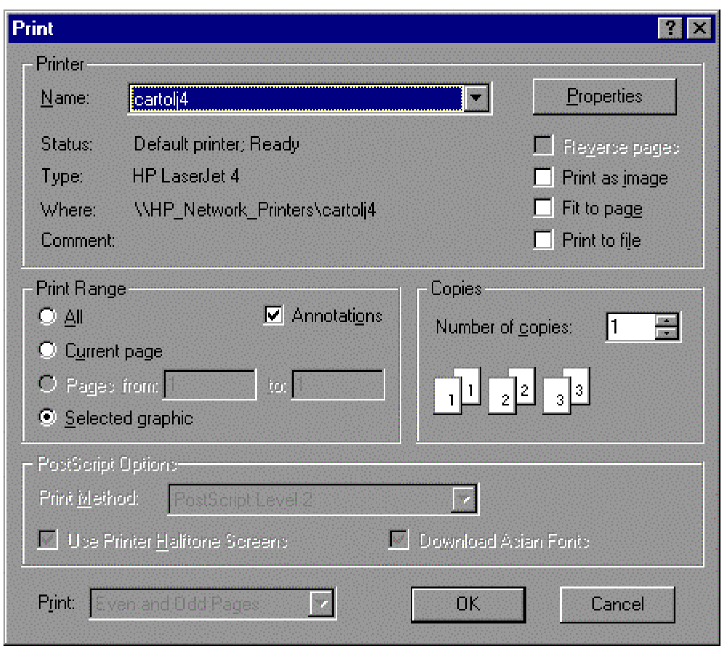
Using the pan tool, go to the area you would like to print. Select the Graphic Selection Tool by holding down the Text Selection Tool button and clicking on the Graphic Selection Tool button.



Then using the Graphic Selection Tool drag a box around the area you would like to print. Note dashed lines forming a box around area to print.



Select File Print. The Print Range will be set to Selected graphic. Click OK and the map will be sent to the printer.



NRCS SOILS 37A
3/95

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

CULTURAL FEATURES

DESCRIPTION	SYMBOL
BOUNDARIES	
• National, state, or province	
• County or parish	
Minor civil division	
Reservation, (national forest or park, state forest or park)	
Land grant	
Limit of soil survey (label) and/or denied access areas	
• Field sheet matchline & neatline	
Previously published survey	
OTHER BOUNDARY (label)	
Airport, airfield	Davis airstrip
• Cemetery	St Johns Cemetery
City / county Park	Central Park
STATE COORDINATE TICK	
• LAND DIVISION CORNERS (section and land grants)	
• GEOGRAPHIC COORDINATE TICK	
TRANSPORTATION	
Divided roads	
Other roads	
Trails	
ROAD EMBLEMS & DESIGNATIONS	
• Interstate	79 / 79 345
• Federal	410 / 410 224
• State	52 / 52 347
County, farm, or ranch	376
RAILROAD	
POWER TRANSMISSION LINE (normally not shown)	
PIPELINE (normally not shown)	
FENCE (normally not shown)	
LEVEES	
Without road	
With road	
With railroad	
++Single side slope (showing actual feature location)	
DAMS	
Medium or small	W
LANDFORM FEATURES	
Prominent hill or peak	
Soil sample site	S

* Cultural features for use in Illinois

CULTURAL FEATURES (cont.)

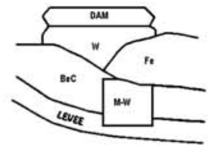
DESCRIPTION	SYMBOL
MISCELLANEOUS CULTURAL FEATURES	
Farmland, house (omit in urban areas)	
Church	
School	
Other Religion (label)	Mt Carmel
Located object (label)	Ranger Station
Tank (label)	Petroleum
Lookout Tower	
Oil and / or Natural Gas Wells	
Windmill	
Lighthouse	

HYDROGRAPHIC FEATURES

DESCRIPTION	SYMBOL
STREAMS	
Perennial, double line	
Perennial, single line	
Intermittent	
Drainage end	
DRAINAGE AND IRRIGATION	
Double line canal (label)	CANAL
Perennial drainage and/or irrigation ditch	
Intermittent drainage and/or irrigation ditch	
SMALL LAKES, PONDS, AND RESERVOIRS	
Perennial water	
Miscellaneous water	
Flood pool line	FLOOD POOL LINE
MISCELLANEOUS WATER FEATURES	
Spring	
Well, artesian	
Well, irrigation	

SPECIAL SYMBOLS FOR SOIL SURVEY AND SSURGO

SOIL DELINEATIONS AND SYMBOLS



DESCRIPTION	SYMBOL
LANDFORM FEATURES	
ESCARPMENTS	
Bedrock	
Other than bedrock	
SHORT STEEP SLOPE	
GULLY	
DEPRESSION, closed	
SINKHOLE	
EXCAVATIONS	
PITS	
Borrow pit	
Gravel pit	
Mine or quarry	
LANDFILL	
MISCELLANEOUS SURFACE FEATURES	
Blowout	
Clay spot	
Gravelly spot	
Lava flow	
Marsh or swamp	
Rock outcrop (includes sandstone and shale)	
Saline spot	
Sandy spot	
Severely eroded spot	
Slide or slip	
Sodic spot	
Spoil area	
Stony spot	
Very stony spot	
Wet spot	

RECOMMENDED AD HOC SOIL SYMBOLS

	SYMBOL_ID			SYMBOL_ID	
	1			23	
	2			24	
	3			25	
	4		Gray spot	26	GSP
	5			27	
	6			28	
	7		Calcareous spot	29	CSP
	8		Muck spot	30	MUC
	9			31	
	10			32	
	11			33	
Dumps	12	DMP		34	
	13		Mine subsided area	35	MSA
	14			36	
Oil brine spot	15	OBS		37	
	16			38	
	17			39	
Iron bog	18	BFE	Glacial till spot	40	GLA
	19			41	
Disturbed soil spot	20	DSS		42	
	21			43	
	22			44	

Definitions of Special Symbols

Name	Description	Label
Blowout	A small saucer-, cup-, or trough-shaped hollow or depression formed by wind erosion on a preexisting sand deposit. Typically 0.2 acre to 2.0 acres.	BLO
Borrow pit	An open excavation from which soil and underlying material have been removed, usually for construction purposes. Typically 0.2 acre to 2.0 acres.	BPI
Calcareous spot	An area in which the soil contains carbonates in the surface layer. The surface layer of the named soils in the surrounding map unit is noncalcareous. Typically 0.5 acre to 2.0 acres.	CSP
Clay spot	A spot where the surface layer is silty clay or clay in areas where the surface layer of the soils in the surrounding map unit is sandy loam, loam, silt loam, or coarser. Typically 0.2 acre to 2.0 acres.	CLA
Depression, closed	A shallow, saucer-shaped area that is slightly lower on the landscape than the surrounding area and that does not have a natural outlet for surface drainage. Typically 0.2 acre to 2.0 acres.	DEP
Disturbed soil spot	An area in which the soil has been removed and materials redeposited as a result of human activity. Typically 0.25 acre to 2.0 acres.	DSS
Dumps	Areas of nonsoil material that support little or no vegetation. Typically 0.5 acre to 2.0 acres.	DMP
Escarpment, bedrock	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.	ESB
Escarpment, nonbedrock	A relatively continuous and steep slope or cliff, generally produced by erosion but in some places produced by faulting, that breaks the continuity of more gently sloping land surfaces. Exposed earthy material is nonsoil or very shallow soil.	ESO
Glacial till spot	An exposure of glacial till at the surface of the earth. Typically 0.25 acre to 2.0 acres.	GLA
Gravel pit	An open excavation from which soil and underlying material have been removed and used, without crushing, as a source of sand or gravel. Typically 0.2 acre to 2.0 acres.	GPI
Gravelly spot	A spot where the surface layer has more than 35 percent, by volume, rock fragments that are mostly less than 3 inches in diameter in an area that has less than 15 percent rock fragments. Typically 0.2 acre to 2.0 acres.	GRA

Name	Description	Label
Gray spot	A spot in which the surface layer is gray in areas where the subsurface layer of the named soils in the surrounding map unit are darker. Typically 0.25 acre to 2.0 acres.	GSP
Gully	A small channel with steep sides cut by running water through which water ordinarily runs only after a rain or after melting of snow or ice. It generally is an obstacle to wheeled vehicles and is too deep to be obliterated by ordinary tillage.	GUL
Iron bog	An accumulation of iron in the form of nodules, concretions, or soft masses on the surface or near the surface of soils. Typically 0.2 acre to 2.0 acres.	BFE
Landfill	An area of accumulated waste products of human habitation, either above or below natural ground level. Typically 0.2 acre to 2.0 acres.	LDF
Levee	An embankment that confines or controls water, especially one built along the banks of a river to prevent overflow onto lowlands.	LVS
Marsh or swamp	A water-saturated, very poorly drained area that is intermittently or permanently covered by water. Sedges, cattails, and rushes are the dominant vegetation in marshes, and trees or shrubs are the dominant vegetation in swamps. Typically 0.2 acre to 2.0 acres.	MAR
Mine or quarry	An open excavation from which soil and underlying material have been removed and in which bedrock is exposed. Also denotes surface openings to underground mines. Typically 0.2 acre to 2.0 acres.	MPI
Mine subsided area	An area that is lower than the soils in the surrounding map unit because of subsurface coal mining. Typically 0.25 acre to 3.0 acres.	MSA
Miscellaneous water	A small, constructed body of water that is used for industrial, sanitary, or mining applications and that contains water most of the year. Typically 0.2 acre to 2.0 acres.	MIS
Muck spot	An area that occurs within an area of poorly drained or very poorly drained soil and that has a histic epipedon or an organic surface layer. The symbol is used only in map units consisting of mineral soil. Typically 0.2 acre to 2.0 acres.	MUC
Oil brine spot	An area of soil that has been severely damaged by the accumulation of oil brine, with or without liquid oily wastes. The area is typically barren but may have a vegetative cover of salt-tolerant plants. Typically 0.2 acre to 2.0 acres.	OBS
Perennial water	A small, natural or constructed lake, pond, or pit that contains water most of the year. Typically 0.2 acre to 2.0 acres.	WAT

Name	Description	Label
Rock outcrop	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 or where “Rock outcrop” is a named component of the map unit. Typically 0.2 acre to 2.0 acres.	ROC
Saline spot	An area where the surface layer has an electrical conductivity of 8 mmhos/cm-l more than the surface layer of the named soils in the surrounding map unit. The surface layer of the surrounding soils has an electrical conductivity of 2 mmhos/cm-l or less. Typically 0.2 acre to 2.0 acres.	SAL
Sandy spot	A spot where the surface layer is loamy fine sand or coarser in areas where the surface layer of the named soils in the surrounding map unit is very fine sandy loam or finer. Typically 0.2 acre to 2.0 acres.	SAN
Severely eroded spot	An area where, on the average, 75 percent or more of the original surface layer has been lost because of accelerated erosion. Not used in map units in which “severely eroded,” “very severely eroded,” or “gullied” is part of the map unit name. Typically 0.2 acre to 2.0 acres.	ERO
Short steep slope	A narrow area of soil having slopes that are at least two slope classes steeper than the slope class of the surrounding map unit.	SLP
Sinkhole	A closed depression formed either by solution of the surficial rock or by collapse of underlying caves. Typically 0.2 acre to 2.0 acres.	SNK
Slide or slip	A prominent landform scar or ridge caused by fairly recent mass movement or descent of earthy material resulting from failure of earth or rock under shear stress along one or several surfaces. Typically 0.2 acre to 2.0 acres.	SLI
Sodic spot	An area where the surface layer has a sodium adsorption ratio that is at least 10 more than that of the surface layer of the named soils in the surrounding map unit. The surface layer of the surrounding soils has a sodium adsorption ratio of 5 or less. Typically 0.2 acre to 2.0 acres.	SOD
Spoil area	A pile of earthy materials, either smoothed or uneven, resulting from human activity. Typically 0.2 acre to 2.0 acres.	SPO
Stony spot	A spot where 0.01 to 0.1 percent of the surface cover is rock fragments that are more than 10 inches in diameter in areas where the surrounding soil has no surface stones. Typically 0.2 acre to 2.0 acres.	STN
Unclassified water	A small, natural or manmade lake, pond, or pit that contains water, of an unspecified nature, most of the year. Typically 0.2 acre to 2.0 acres.	UWT

Name	Description	Label
Very stony spot	A spot where 0.1 to 3.0 percent of the surface cover is rock fragments that are more than 10 inches in diameter in areas where the surface cover of the surrounding soil is less than 0.01 percent stones. Typically 0.2 acre to 2.0 acres.	STV
Wet depression	A shallow, concave area within an area of poorly drained or very poorly drained soils in which water is ponded for intermittent periods. The concave area is saturated for appreciably longer periods of time than the surrounding soil. Typically 0.2 acre to 2.0 acres.	WDP
Wet spot	A somewhat poorly drained to very poorly drained area that is at least two drainage classes wetter than the named soils in the surrounding map unit. Typically 0.2 acres to 2.0 acres.	WET