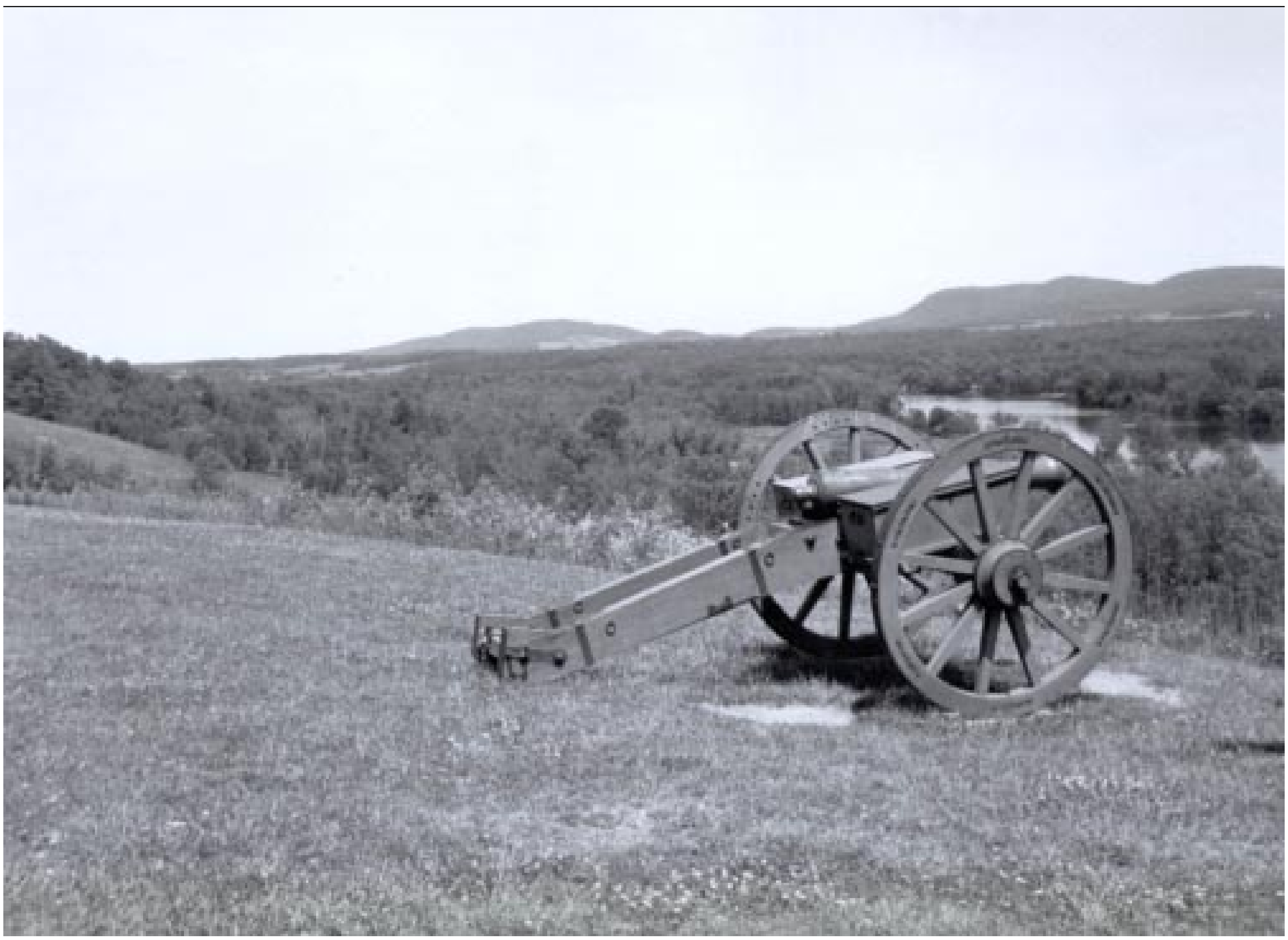
United States
Department of
Agriculture

Natural
Resources
Conservation
Service

In cooperation with
Cornell University
Agricultural Experiment
Station

Soil Survey of Saratoga County, New York



How To Use This Soil Survey

General Soil Map

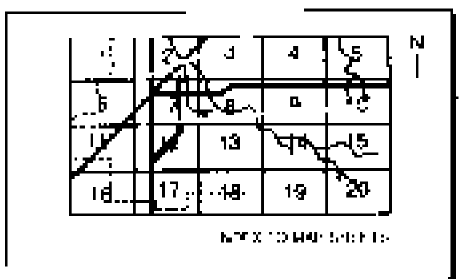
The general soil map, which is a color map, shows the survey area divided into groups of associated soils called general soil map units. This map is useful in planning the use and management of large areas.

To find information about your area of interest, locate that area on the map, identify the name of the map unit in the area on the color-coded map legend, then refer to the section **General Soil Map Units** for a general description of the soils in your area.

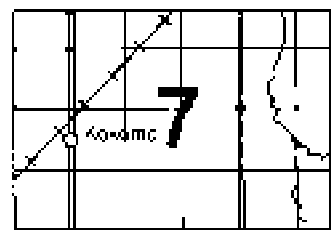
Detailed Soil Maps

The detailed soil maps can be useful in planning the use and management of small areas.

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

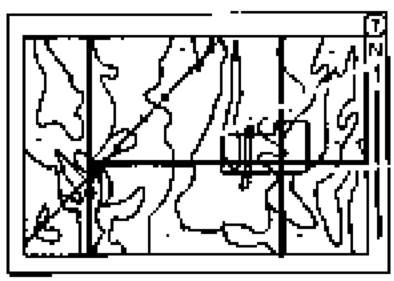


INDEX TO MAP SHEETS

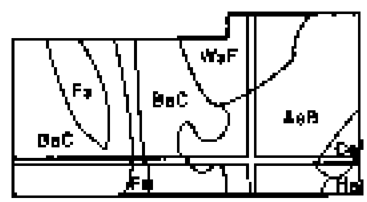


MAP SHEET

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.



MAP SHEET



AREA OF INTEREST

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.

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

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 1992. Soil names and descriptions were approved in 1993. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1993. This survey was made cooperatively by the Natural Resources Conservation Service and the Cornell University Agricultural Experiment Station. The survey is part of the technical assistance furnished to the Saratoga County Soil and Water Conservation District. Additional funding for this survey was provided by the New York State Department of Agriculture and Markets.

Cover: Saratoga Battlefield represents the turning point of the American Revolution. The Hudson River, on the right, was a major transportation route from early colonial times, and control of it was crucial to victory of either side. Tioga and Teel soils, on the floodplain, are prime farmland soils. The cannon is on clayey Hudson soils.

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.

Contents

Issued 2004

Foreword

This soil survey contains information that affects land use planning in Saratoga County. 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, ranchers, 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. Broad areas of soils are shown on the general soil map. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described. Information on specific uses is given for each soil. 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.

Joseph R. DelVecchio
State Conservationist
Natural Resources Conservation Service

Soil Survey of
Saratoga County, New York

By Mark H. Silverman, Natural Resources Conservation Service

Fieldwork by Paul E. Konopka, Val Krawiecki, Mark H. Silverman, and Ralph Work, Natural Resources Conservation Service

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

SARATOGA COUNTY is in eastern New York approximately 150 miles north of New York City. The county is situated on the west bank of the Hudson River, north of its confluence with the Mohawk River (fig.1). It covers an area of 537,300 acres, or 840 square miles (including water).

The county had a population of about 182,300 in 1990 and has 20 towns, 8 villages, and 2 cities. Ballston Spa is the county seat. Elevation ranges from 60 feet above sea level in Waterford, at the southeast corner of the county, to 2,600 feet in the Adirondack foothills.

Tourism, in connection with the mineral springs and the thoroughbred and standard bred horseracing of Saratoga Springs, is a major industry in the county. The southern towns have been heavily developed as residential communities for employees of the State capitol in Albany and industry in the nearby cities of Schenectady and Troy.

The county had about 53,300 acres devoted to cropland in 1990 according to the Census of Agriculture. Much of this is in support of the dairy industry and horse farms. Saratoga County has more than 5,000 acres of national, state, county, and town parks. About 27 percent of the land in the county is within the boundary of the Adirondack State Park, a complex of state and private ownership.

An earlier soil survey of Saratoga County was published by the Bureau of Soils, USDA in 1919 in cooperation with the New York State College of Agriculture, Cornell University *(Maxon and Bromley, 1919)*. This survey updates the 1919 survey and provides additional interpretive information and large scale maps, which show the soils in greater detail on aerial photographs.

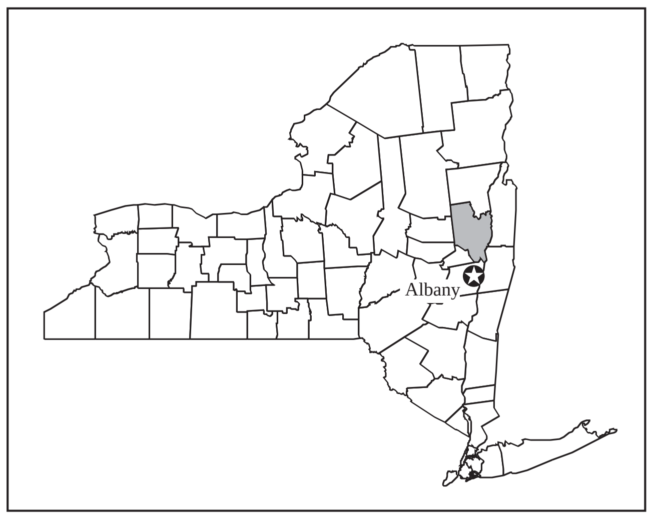


Figure 1.—Location of Saratoga County in New York.

General Nature of the County

This section provides general information about the history and development, the transportation and industry, the physiography and geology, the drainage, the water supply, and the climate of the survey area.

History and Development

The original inhabitants of the area were the Iroquois, who called it Sar-ach-toque, meaning hillside of a great river, place of the swift water. This apparent reference to the Hudson and Mohawk Rivers made it an area well suited to early settlement by Europeans. The English, after taking control of New York from the Dutch in 1664, granted large “patents” to various groups and individuals. These groups then in turn surveyed and divided the lands to be settled or developed. By 1788, the area that now makes up Saratoga County had been granted through 16 patents. The original patents were part of Albany County. Through the formation of separate districts and towns and an act of the New York State Legislature, Saratoga County was created in 1791. By 1828 the towns and municipalities as we now know them were in existence *(Johnstone and the Saratoga County Planning Board, 1980)*.

During the Revolutionary War, the Battle of Saratoga took place on the lands that are now part of the Saratoga National Historical Park. This was the “Turning point of the Revolution”, when General Burgoyne surrendered to revolutionary forces. After the Revolutionary War, the county grew rapidly. Abundant forests and streams for waterpower led to a growth of small industries. During the 19th century, the profusion of mineral springs attracted many people from throughout the world. Hotels, bottling plants and parks were developed to accommodate the visitors.

In the 1820s, the construction of the Champlain Canal and the Erie Canal, linked together at Crescent and tied to the Hudson River transportation system, began a new era of growth in Saratoga County. Railroads soon became popular for tourists visiting the area. Agriculture, industry and transportation, along with tourism, blossomed along with national growth in the later half of the 19th century.

Suburban development after World War II brought the next era of growth to Saratoga County. Population in the southernmost towns quadrupled as they became bedroom communities for the cities to the south, and this growth continues to spread northward today.

Transportation and Industry

The Adirondack Northway (Interstate 87) traverses the mid-eastern portion of the county in a general north-south direction. It provides access to most of the county through connections with a network of state, county and town roads. To the south it merges with the New York State Thruway at Albany, giving direct access to New York City, Buffalo, and Boston. To the north it connects to Montreal, Canada.

Passenger rail service is available aboard Amtrak, with stations in Saratoga Springs, and nearby cities. Freight service is available in Mechanicville and at other points along rail lines.

The New York State Barge Canal system provides waterways for the transport of many tons of cargo each year, and convenient passage for pleasure craft. The Erie division runs east-west along the southern boundary of the county, while the Champlain division runs north-south along the eastern boundary, both joining at the Hudson River near Waterford.

The Saratoga County Airport serves private aircraft, and is being expanded to handle larger aircraft. Albany County Airport, just south of southern Saratoga County, has a number of commercial airline terminals *(Saratoga County Planning Board, 1977)*.

Since early settlement days, forestry and related products have been a large part of the industry of Saratoga County. Paper products now make up much of that sector. Agriculture is still a major industry, including dairy and horse farms, fruits, vegetables and nursery stock. These all serve Saratoga’s world famous tourist trade, which accounts for a large part of the commerce in the county. Housing and related service industries contribute much to the employment in the heavily developed parts of the county *(Saratoga County Planning Board, 1978).*

Physiography and Geology

David S. Sullivan, Geologist, USDA-Natural Resources Conservation Service, Syracuse, New York, helped to prepare this section.

Saratoga County is located in east-central New York State. It is bounded to the north by Warren County and is separated from Warren, Washington, and Rensselaer Counties to the northeast and east by the Hudson River. Additional county boundaries include the Mohawk River to the southeast, and Schenectady, Montgomery, Fulton and Hamilton counties to the south and west.

Saratoga County is part of two physiographic provinces. The northwestern portion of the county is located in the Adirondack Highlands Physiographic province while the remainder lies within the Hudson-Mohawk Lowlands province *(Cadwell and Dineen, 1987)*. The boundary between the two provinces is a series of northeast trending block faults, which are located primarily in the southeastern section of the Adirondack Highlands and are marked by long straight valleys. Sacandaga Reservoir and Lake George occupy two of these fault-controlled valleys. The areas to the northwest of each fault line have been displaced upward relative to the rocks to the southeast creating steep angles that dip toward the southeast. The amount of displacement varies at different places along the fault lines, and displacements of a few hundred feet are not uncommon. The Saratoga/ McGregor fault line which passes through the Saratoga Springs area controls the locations of many of the mineral springs in that region *(Broughton, 1976)*.

The topography of the Adirondack Highlands Province is characterized by mature mountain ranges composed of bedrock that is highly resistant to erosion. The highest mountains in New York State, Mt. Marcy and Mt. Algonquin, each over 5,000 feet, occur in this province. Elevations in the Saratoga County portion of the province range from about 800 feet above mean sea level along the southeastern flank of the Kayaderosseras Range to nearly 2,800 feet above mean sea level at Tenant Mountain in the General Edwards Range at the northwestern corner of the county.

Elevation and relief is lower to the east and southeast of the Kayaderosseras Range in the Hudson-Mohawk Lowlands, and decreases to an elevation of approximately 20 feet above mean sea level at Waterford on the Hudson River. Variations in slope toward the southeast and east can generally be attributed to escarpments formed by resistant rock layers that occur in the usually low resistant rocks of this province.

Bedrock within Saratoga County is primarily crystalline in the Adirondack Highlands Region and of sedimentary origin in the Hudson-Mohawk Lowlands *(Broughton, 1976)*. The crystalline rock is the oldest rock in the county. It is Precambrian in age and is approximately 600 million years old or older. The crystalline rocks are composed of several different types of metamorphic and igneous rocks. The metamorphic rocks include hornblende and biotite granitic gneiss (hbg) as well as quartzite, quartz schist (qt), and marble (mb). Igneous rocks such as granite, anorthosite, syenite, and gabbro are also common and are often intermingled with the metamorphic rocks (mu).

Bordering the Adirondack Highlands and extending east into the Hudson-Mohawk Lowlands near Saratoga Springs are Lower Ordovician to Cambrian age sedimentary rocks of the Beekmantown Group. These rocks are between 500-600 million years old, and consist of Potsdam Sandstones (Cp), Theresa Formation sandstones and dolostones (Cth), and dolostones of the Gailor (Obk) and Little Falls formations (Cbk). Some of the dolostone formations also contain limestone. The mineral waters associated with Saratoga Springs occur principally in the Gailor Dolostone and are thought to originate in the eastern part of Saratoga County and the western part of Washington and Rensselaer Counties *(Cadwell and Dineen, 1987)*.

Further to the east, southeast, and south, the underlying bedrock consists of Middle Ordovician shales and sandstones of the Canajoharie (Oc) and Schenectady Formations (Osc). These rocks are believed to be between 450 and 500 million years old.

Saratoga County was probably covered by several advances and retreats of glacial ice during the Pleistocene Epoch of geologic time. This epoch began approximately 500,000 years ago when an ice sheet originating in the Laurentian Mountain Region of Quebec, Canada moved south and southwestward into New York State. The entire state with the exception of a small portion of Allegheny State Park on the New York-Pennsylvania border was covered *(Cadwell and Dineen, 1987)*. Lobes of ice several thousand feet thick pushed up the Mohawk Valley and southward into the Hudson Valley overriding even the mile high peaks of the Adirondack Highlands. The ice advanced forward stripping away tons of soil and rounding off resistant rock ridges and hills. The eroded material transported by the glacier ranged from clay size particles all the way up to giant boulders. As the ice sheet continued to advance, it deposited glacial debris whenever its load became too excessive.

Four major advances and retreats of the ice sheet have been documented in parts of the United States, however only the last stage, the Wisconsin, is evident in New York. Previous advances and retreats appear to have been obliterated by the Wisconsin Stage, which reached its maximum advance just south of Long Island. The ice sheet began its final retreat approximately 10,000 years ago as the Pleistocene Epoch came to a close. Several modes of deposition occurred in Saratoga County as a result of the Wisconsin Ice Sheet.

The principal surficial deposit in the middle to western part of the county is glacial till, the material deposited under the moving glacier *(Cadwell and Dineen, 1987)*. The till is usually quite dense and consists of unsorted, unstratified, mixtures of clay to boulder size material. It is present on most hills of the Adirondack Highlands region and ranges in thickness from shallow to moderately deep. The till is usually very stony to bouldery, and where it is absent outcrops of bedrock are often present. Till is also found on till plains adjacent to the highlands region where it is generally less stony and usually deeper. Examples of soils formed in glacial till are Hollis, Charlton, Paxton, Essex, and Mosherville areas.

As the ice continued to retreat, substantial amounts of meltwater exited the glacier. This meltwater created temporary lakes in the lowland areas between the ice front and topographic highlands or by plugging meltwater channels with vast amounts of glacial debris. The lakes served as receiving basins for large quantities of sediment transported by the meltwater streams. The largest temporary lake in the Saratoga County region was glacial Lake Albany *(Broughton, 1976)*. It is believed to have reached a length of nearly 140 miles and a width of 8-12 miles in the mid and upper Hudson Valley *(Cadwell and Dineen, 1987)*. Surficial deposits in the eastern portion of Saratoga County reflect material deposited in and near this glacial lake. Stratified deposits of fine to coarse sand, but also including gravel, occupy a substantial portion of the county north to south from the West Milton, Saratoga Springs, Ballston Spa area east to Gansevoort, Schuylerville, and Stillwater and south to the Mohawk River. The sand is part of the glacial Lake Albany sand plain which is marked by ice contact features such as kames and kame terraces, as well as deltas, outwash sands, and lacustrine sands that were deposited by streams entering the lake. These sands, which are the most productive source of groundwater in the county, are usually underlain by glacial till but in some areas may lie directly on bedrock *(Cadwell and Dineen, 1987)*. Fine to coarse sand and gravel deposits also occupy some of the stream valleys in the Hudson-Mohawk Lowlands. Oakville and Windsor soils are examples of soils formed in these deposits.

The remainder of the county east to the Hudson River is composed of lacustrine deposits of clay and silt that were laid down in the deeper water areas of Lake Albany. In a few areas, a surficial layer of sand and gravel overlies the clay and silt. In most areas the clay and silt lies directly on glacial till or bedrock and is a poor source of usable quantities of groundwater. Hudson and Rhinebeck are soil types that are formed in these lacustrine deposits.

The most recent deposits since Wisconsin glaciation are alluvial deposits. These deposits are transported by water and laid down on floodplains of streams and rivers during periods of flooding. This material is usually derived from the underlying glacial deposits or bedrock, and it contains both fine and coarse-grained sediments.

Drainage

The streams in Saratoga County are tributary to the Hudson River and Mohawk River. In general, streams flowing easterly discharge into the Hudson River; and those flowing southerly discharge into the Mohawk River, which enters the Hudson River at the southeast corner of the county.

Four major streams drain about three-fourths of the county. In the northwestern portion, the Sacandaga River, through the Sacandaga Reservoir, drains the Adirondack foothills, and flows into the Hudson River at Hadley. The Snook Kill drains the northeastern lake plain into the Hudson River. The central till plain is drained by the Kayaderosseras Creek into Saratoga Lake, and then by Fish Creek into the Hudson River at Schuylerville. The south central till plain and lake plain drain into Ballston Lake and Round Lake, then through the Anthony Kill into the Hudson River at Mechanicville. The southwestern fringe of Saratoga County is drained by minor tributaries of the Mohawk River. The southeastern and north-central areas drain directly into the Hudson River.

The Hudson River, which forms the boundary between Saratoga County and Warren, Washington and Rensselaer Counties, is the largest stream in the area. The river is controlled by dams of the Champlain Canal and power generation stations. Locks at the dams are operated by the New York State Department of Transportation.

The Mohawk River forms the southern boundary of the county with Schenectady and Albany Counties. It is controlled by dams of the Erie Canal, and power generation stations. Locks at the dams are operated by the New York State Department of Transportation. It flows into the Hudson River at Waterford, where the elevation is about 60 feet above sea level, and is affected by Atlantic Ocean tides.

Water supply

The largest source of water in the county is a groundwater aquifer which runs through the center of the county from South Glens Falls in the northeast, to Clifton Park in the south. This is a glacial trough that has been filled with outwash and lacustrine sediments by receding glacial meltwaters. The water resources are considered adequate for increasing population numbers, although delivery systems may not be adequate to meet the demand. There are a number of private water companies that supply water to residential developments. The county and local municipalities are becoming increasingly involved in the ownership of water supplies *(Heath, 1963)*.

Some municipalities rely on surface water supplies from local reservoirs. Often these are supplemented by individual wells drilled into fractured bedrock aquifers. Rural homes are mostly served by private wells.

In general, the quality of water, both surface and underground, is good. Surface water is occasionally exposed to contamination, but contamination is not a major problem in this county. Hardness of groundwater depends on the aquifer and can be a nuisance in some areas. In areas where wells are drilled into shale bedrock, iron and sulfur may cause problems with use.

Climate

Table 1 gives data on temperature and precipitation for the survey area as recorded at Saratoga Springs, New York in the period 1961 to 1990. 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 22 degrees F and the average daily minimum temperature is 12 degrees. In summer, the average temperature is 69 degrees and the average daily maximum temperature is 82 degrees. The highest recorded temperature, which occurred on June 30, 1964, is 99 degrees.

Growing degree-days are shown in table 1. They are equivalent to “heat units.” During the month, growing degree-days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is about 41 inches. Of this, 22 inches or 54 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 13 inches. Thunderstorms occur on about 26 days each year, and most occur in summer.

The average seasonal snowfall is about 62 inches. The greatest snow depth at any one time during the period of record was 42 inches. On the average, 95 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.

The average relative humidity in midafternoon is about 60 percent. Humidity is higher at night, and the average at dawn is about 80 percent. The sun shines 60 percent of the time possible in summer and 40 percent in winter. The prevailing wind is from the south. Average windspeed is highest, 11 miles per hour, in spring.

How This Survey Was Made

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

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

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil 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 color, texture, size, and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, 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. Some interpretations are modified 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 high water table within certain depths in most years, but they cannot predict that a high 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.

This survey was mapped at two levels of detail. At the more detailed level, map units are narrowly defined. Map unit boundaries were plotted and verified at closely spaced intervals. At the less detailed level, map units are broadly defined. Boundaries were plotted and verified at wider intervals. In the legend for the detailed soil maps, narrowly defined units are indicated by symbols in which the first letter is a capital and the second is lowercase. For broadly defined units, the first and second letters are capitals.

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

Survey Procedures

The general procedures followed in making this survey are described in the National Soils Handbook *(USDA, 1983)* of the Natural Resources Conservation Service and the Soil Survey Manual *(USDA, 1961)*. The soil survey maps made for conservation planning on individual farms prior to the start of the project and the 1919 Soil Survey of Saratoga County *(Maxon and Bromley, 1919)* were among the references used.

Before the field work began, preliminary boundaries of slopes and landforms were plotted stereoscopically on aerial photographs taken in 1968 and 1982, and enlarged to a scale of 1:15,840 (or 1:24,000 in the mountainous areas, mostly in the Adirondack Park portion of the county). Soil scientists studied U.S. Geological Survey topographic maps, at a scale of 1:24,000, and high altitude false color infrared photography taken in 1985, to relate land and image features. A reconnaissance was made by vehicle before the landscape was traversed on foot.

Sample areas were selected to represent the major landscapes in the county. These areas were investigated more closely than the rest of the county. Extensive notes were taken on the composition of map units in these preliminary study areas. As mapping progressed, these preliminary notes were modified and a final assessment of the composition of the individual map units was made. In areas where phases of Broadalbin, Mosherville, Nunda, and Burdett series were mapped, and in other areas where the soil pattern is very complex, traverses were as close as 100 yards. In the Adirondack portion of the county, where phases of Berkshire, Becket, and Tunbridge series are mapped, the soil pattern is relatively simple, so traverses were about 1 mile apart.

As the traverses were made, the soil scientists divided the landscape into landforms or landform segments based on use and management of the soils. For example, a hill would be separated from a depression and a gently sloping summit from a very steep back slope of a ridge. In most areas, soil examinations along the traverses were made 100 to 800 yards apart, depending on the landscape and soil pattern.

Observations of landforms, blown-down trees, vegetation, roadbanks, and animal burrows were made without regard to spacing. Soil boundaries were determined on the basis of soil examinations, observations, and photo interpretation. The soil material was examined with the aid of a hand auger or a spade to a depth of about 6 feet or to bedrock within a depth of 6 feet. The pedons described as typical were observed and studied in pits that were dug with shovels, spades, or backhoes.

Samples for chemical and physical analyses and for analyses of engineering properties were taken from representative sites of several of the soils in the survey area. The chemical and physical analyses were made by the Soil Characterization Laboratory, Department of Agronomy, Cornell University. The analyses for engineering properties were made by the N.Y.S. Department of Transportation, Bureau of Soil Mechanics. A description of the laboratory procedures can be obtained on request from these two laboratories. The results of the studies can be obtained from the state office of the Natural Resources Conservation Service, Syracuse, New York.

General Soil Map Units

The general soil map in this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape. Typically, it consists of one or more major soils or miscellaneous areas and some minor soils or miscellaneous areas. It is named for the major soils or miscellaneous areas. The components of one map unit can occur in another but in a different pattern.

The general soil map can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

Because of its small scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. The soils in any one map unit differ from place to place in slope, depth, drainage, and other characteristics that affect management.

In some areas along the borders of Saratoga County, the names of the general soil map units do not match those of adjoining counties. These discrepancies exist because of differences in the detail on mapping, changes in soil classification, and differences in the proportions of the same soil in adjoining counties. In those areas, the units in the adjoining counties contain similar kinds of soils.

1. Windsor-Deerfield-Scio

Dominantly nearly level to steep, excessively drained to moderately well drained, medium to coarse textured, very deep soils, on the Ancient Lake Albany outwash plain, beach ridge and terraces

These soils formed in sandy glacial outwash deposits and silty deltaic sediments. The landscape is a narrow plain above the Hudson River floodplain. Slopes range from 0 to 35 percent.

This unit makes up about 12.4 percent of the county. It is about 55 percent Windsor soils, 13 percent Deerfield soils, 9 percent Scio soils, and 23 percent minor soils (fig. 2).

The nearly level to hilly Windsor soils are on beach ridges, terraces, and along the steeper side slopes parallel to small tributary streams. These soils are very deep and excessively drained and have a moderately coarse to coarse textured subsoil. The rate of water movement is rapid or very rapid throughout the soil. The high water table is at a depth of more than 6 feet during most of the year.

The nearly level or undulating Deerfield soils are at slightly lower positions on the landscape than the Windsor soils. These soils are very deep and moderately well drained, and have a moderately coarse textured subsoil. The rate of water movement is rapid or very rapid throughout the soil. A high water table is at a depth of 1.5 to 3 feet in spring and during prolonged wet periods.

The nearly level or gently sloping Scio soils are on terraces and in slight depressions on the glacial lake plain. These soils are very deep and moderately well drained, and have a medium textured subsoil. The rate of water movement is moderate in the subsoil and moderately rapid or rapid in the substratum. A high water table is at a depth of 1.5 to 2.0 feet in spring and during prolonged wet periods.

Of minor extent in this unit are Oakville, Wareham, Scarboro, Hinckley, Cosad and Claverack soils. Oakville soils are well drained and formed in fine sand on outwash plains. Wareham soils are somewhat poorly drained and poorly drained, and formed in nearly level and slightly depressional areas on outwash plains. Scarboro soils are very poorly drained and formed in depressions in outwash plains. Hinckley soils are excessively drained and formed in gravelly material on outwash plains, deltas, eskers and kames. Moderately well drained Claverack soils and somewhat poorly drained Cosad soils formed in sandy deposits underlain by clayey material within 40 inches on lake plains.

Many areas of this map unit are farmed. Some areas are in woodland and some are idle. These soils are easily cultivated, but they erode easily in sloping areas. Windsor soils are droughty in some years. Maintaining organic matter levels helps to keep these soils productive.

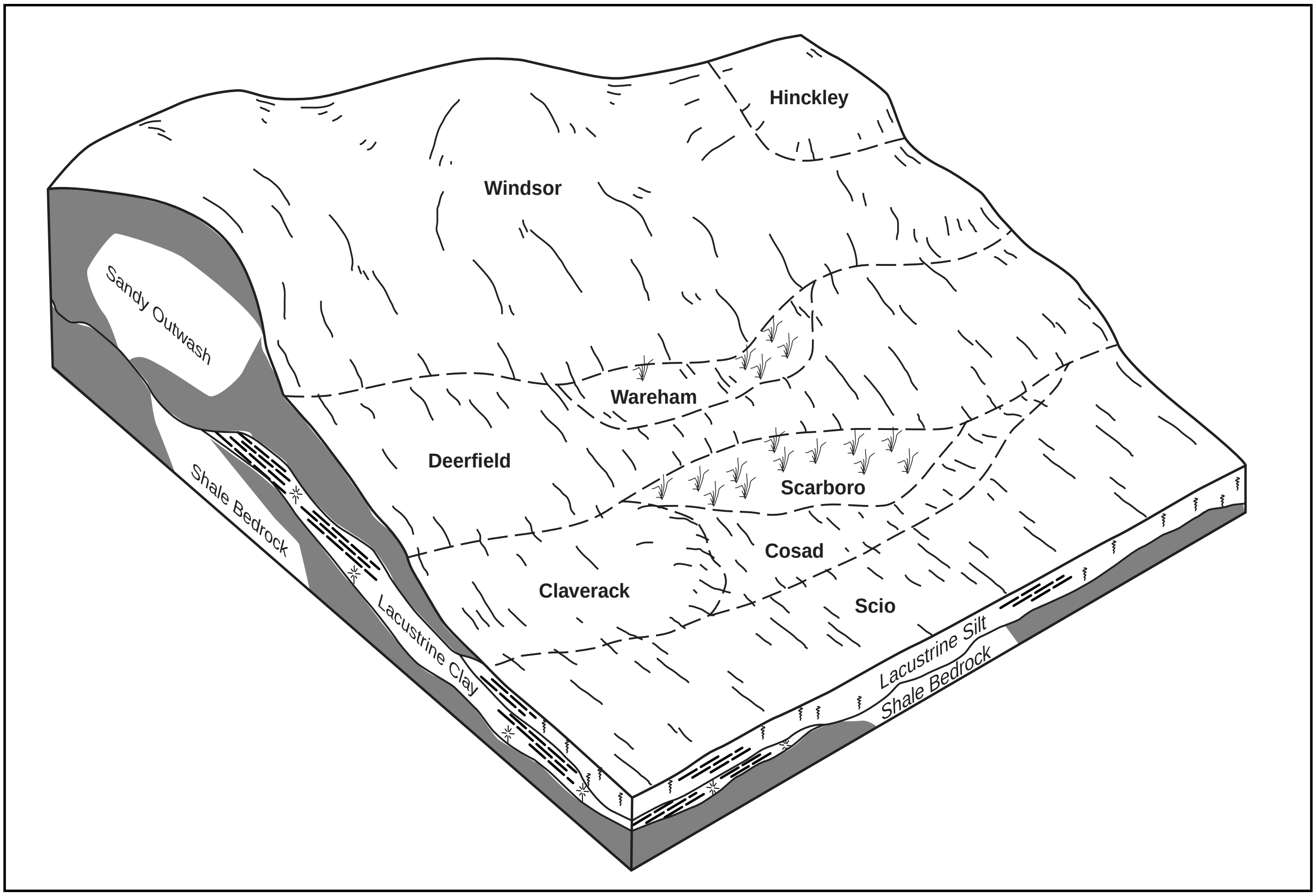


Figure 2.—Typical relationship of soils and underlying material in the Windsor-Deerfield-Scio general soil map unit. Many areas of this unit are farmed and are easily eroded after cultivation.

Rapid permeability of the subsoil seriously limits the use of this unit for onsite septic systems for community development.

2. Oakville-Wareham

Dominantly nearly level to steep, well drained to poorly drained, coarse textured, very deep soils, on the Ancient Lake Albany outwash plain and beach ridge

These soils formed in fine sandy glacial outwash deposits. The landscape is a broad plain above the Hudson River floodplain. Slopes range from 0 to 35 percent.

This unit makes up about 15.6 percent of the county. It is about 65 percent Oakville soils, 8 percent Wareham soils, and 27 percent minor soils.

The nearly level to hilly Oakville soils are on beach ridges, terraces, and along the steeper side slopes parallel to small tributary streams. These soils are very deep, well drained and moderately well drained, and have a moderately coarse to coarse textured subsoil. The rate of water movement is rapid throughout the soil. The high water table is at a depth of more than 6 feet during most of the year.

The nearly level Wareham soils are in depressional areas of the lake plain and along tributary streams. These soils are very deep and somewhat poorly drained and poorly drained, and have a coarse textured subsoil. The rate of water movement is rapid throughout the soil. The high water table is at a depth of 0 to 1.5 feet during the spring and early summer.

Of minor extent in this unit are Windsor, Deerfield, Scarboro, Hoosic, Elmridge and Shaker soils. The excessively drained Windsor soils formed in medium sand, and the moderately well drained Deerfield soils are on outwash plains, kames and terraces. Very poorly drained Scarboro soils are formed in depressions on outwash plains. Hoosic soils are somewhat excessively drained and formed in gravelly material on outwash plains, eskers and moraines.

Moderately well drained Elmridge and poorly drained Shaker soils are formed in loamy deposits underlain by clayey material within 40 inches on lake plains.

Many areas of this map unit have been used for suburban housing development. Some areas of this map unit are farmed. A few areas are in woodland or are idle. These soils are easily cultivated, but they erode easily in sloping areas. Oakville soils are droughty in some years.

Rapid permeability of the subsoil, the high water table in the Wareham soils, and wetness of some of the included soils seriously limit the use of this unit for onsite septic systems for community development.

3. Hudson-Rhinebeck-Manlius

Dominantly nearly level to steep, well drained to somewhat poorly drained, medium textured, very deep soils, on the Ancient Lake Albany and Hudson Valley lake plain, and moderately deep glacial till soils where the sediments are associated with exposed shale

These soils formed in silty and clayey glacial lake deposits and glacial till influenced by the underlying shale bedrock. The landscape is a broad plain above the Hudson River and an area of complex, glacially modified topography extending west to Saratoga Lake; the plain is dissected by a series of small streams that

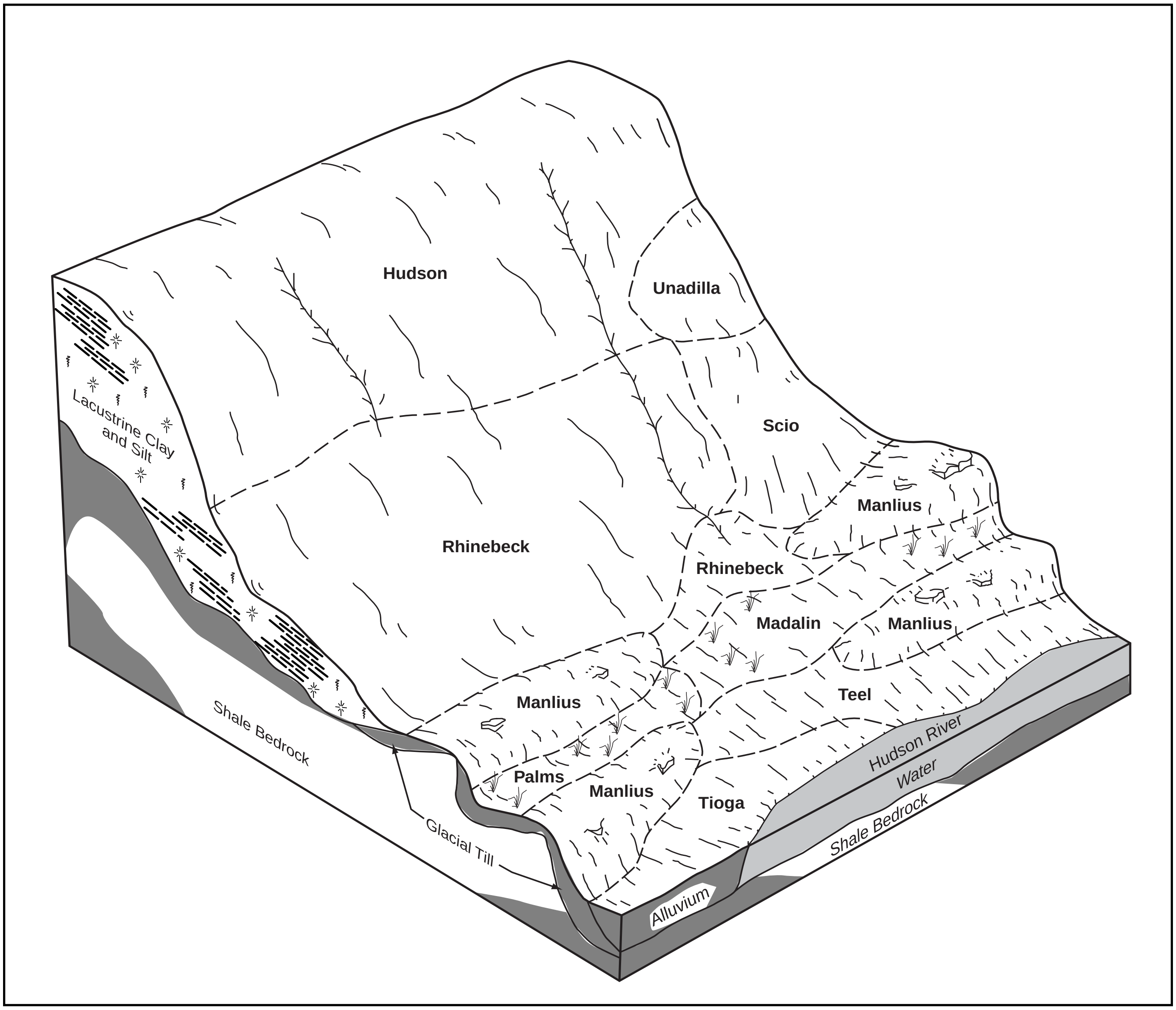


Figure 3.—Typical relationship of soils and underlying material in the Hudson-Rhinebeck-Manlius general soil map unit. These areas are gently sloping to hilly with scattered rock outcrops in the Manlius part of the unit.

have formed deep ravines. Slopes range from 0 to 35 percent.

This unit makes up about 11.2 percent of the county. It is about 35 percent Hudson soils, 25 percent Rhinebeck soils, 10 percent Manlius soils and 30 percent minor soils (fig. 3).

The gently sloping to steep Hudson soils are in undulating and rolling areas of the lake plain and along the steeper side slopes parallel to small tributary streams. These soils are very deep and moderately well drained and have a fine textured subsoil. The rate of water movement is moderate or moderately slow in the surface and subsurface layers and slow or very slow beneath. A high water table is at a depth of 1.5 to 2.0 feet during winter and for short periods in spring.

The nearly level or gently sloping Rhinebeck soils are in slightly depressed positions on the lake plain, and between hills in the upland area east of Saratoga Lake. These soils are very deep and somewhat poorly drained, and have a fine textured subsoil. The rate of water movement is moderately slow in the surface layer and slow in the subsoil. A high water table is at a depth of 0.5 to 1.5 feet in spring and during prolonged wet periods.

The undulating to hilly Manlius soils are on the tops and sides of ridges and hills, and in rolling areas between larger hills. The soils are moderately deep and well drained. Folded and tilted shale and slate are at a depth of 20 to 40 inches. The rate of water movement is moderate. The water table is at a depth of more than 6 feet. Scattered exposures of bedrock are visible in places, particularly on crests of ridges and on the top of knolls and hills.

Of minor extent in this unit are Madalin, Unadilla, Scio, Raynham, Elmridge, Shaker, Tioga, Teel, and Palms. Madalin soils are poorly drained and very poorly drained and are in slight depressions on lake plains. Well drained Unadilla, moderately well drained Scio, and somewhat poorly drained Raynham soils are formed in silty and very fine sandy deposits on old lake plains and terraces. Moderately well drained Elmridge and poorly drained Shaker soils are formed in loamy deposits underlain by clayey material within 40 inches on lake plains. Well drained Tioga and moderately well drained Teel soils are formed in recent alluvium on floodplains along both streams and rivers. Palms soils are very poorly drained and formed in organic material in low bogs and swampy areas.

Of minor extent in the upland portion of this map unit are Bernardston, Nassau, Pittstown and Sun soils. Bernardston soils are very deep and formed in very dense, compact glacial deposits on drumlins and till plains. Nassau soils are similar to Manlius soils but are 10 to 20 inches deep on bedrock controlled till plains and hills. Pittstown soils are moderately well drained, and are on lower hillsides. Sun soils are poorly drained or very poorly drained and occupy depressions that receive runoff from adjacent soils.

Many areas of this map unit are farmed. Some areas are in woodland and some are idle. Hudson soils can be quite productive, but they erode easily in sloping areas. Rhinebeck soils are difficult to till unless drained. Tilling these soils at the proper moisture content is important to prevent surface clodding and crusting. Shallow inclusions and scattered rock outcrops limit crop production in some areas.

Seasonal wetness, slow permeability and moderate depth to bedrock in some areas seriously limit the use of this unit for community development.

4. Broadalbin-Mosherville-Sun

Dominantly nearly level to moderately steep, well drained to very poorly drained, medium textured, very deep soils; on upland till plains

These soils formed in an eolian mantle and the underlying glacial till. The landscape is hillsides, hilltops, and the surrounding till plains. Slope ranges from 0 to 25 percent.

This unit makes up about 8.2 percent of the county. It is about 40 percent Broadalbin soils, 20 percent Mosherville soils, 10 percent Sun soils, and 30 percent minor soils (fig. 4).

The gently sloping to moderately steep Broadalbin soils are on hilltops, hillsides, and knolls on uplands. These soils are very deep, well drained and moderately well drained, and have a dense substratum. The rate of water movement is moderate in the upper part and slow in the substratum. A seasonal high water table is at a depth of 1.5 to 3 feet for brief periods in the spring.

The nearly level to gently sloping Mosherville soils are at slightly lower positions on the landscape than the Broadalbin soils. These soils are very deep and somewhat poorly drained, and have a dense substratum. The rate of water movement is moderate in the upper part and slow in the substratum. A high water table is at a depth of 0.5 to 1.5 feet in spring and during prolonged wet periods.

The nearly level Sun soils are at the base of slopes and in depressions on the till plain. These soils are very deep and poorly drained and very poorly drained, and have a dense substratum. The rate of water movement is moderate in the surface and slow in the subsoil and substratum. A high water table is at or near the surface in spring and during wet periods.

Of minor extent in this unit are Nassau, Manlius, and Hornell soils. Shallow Nassau and moderately

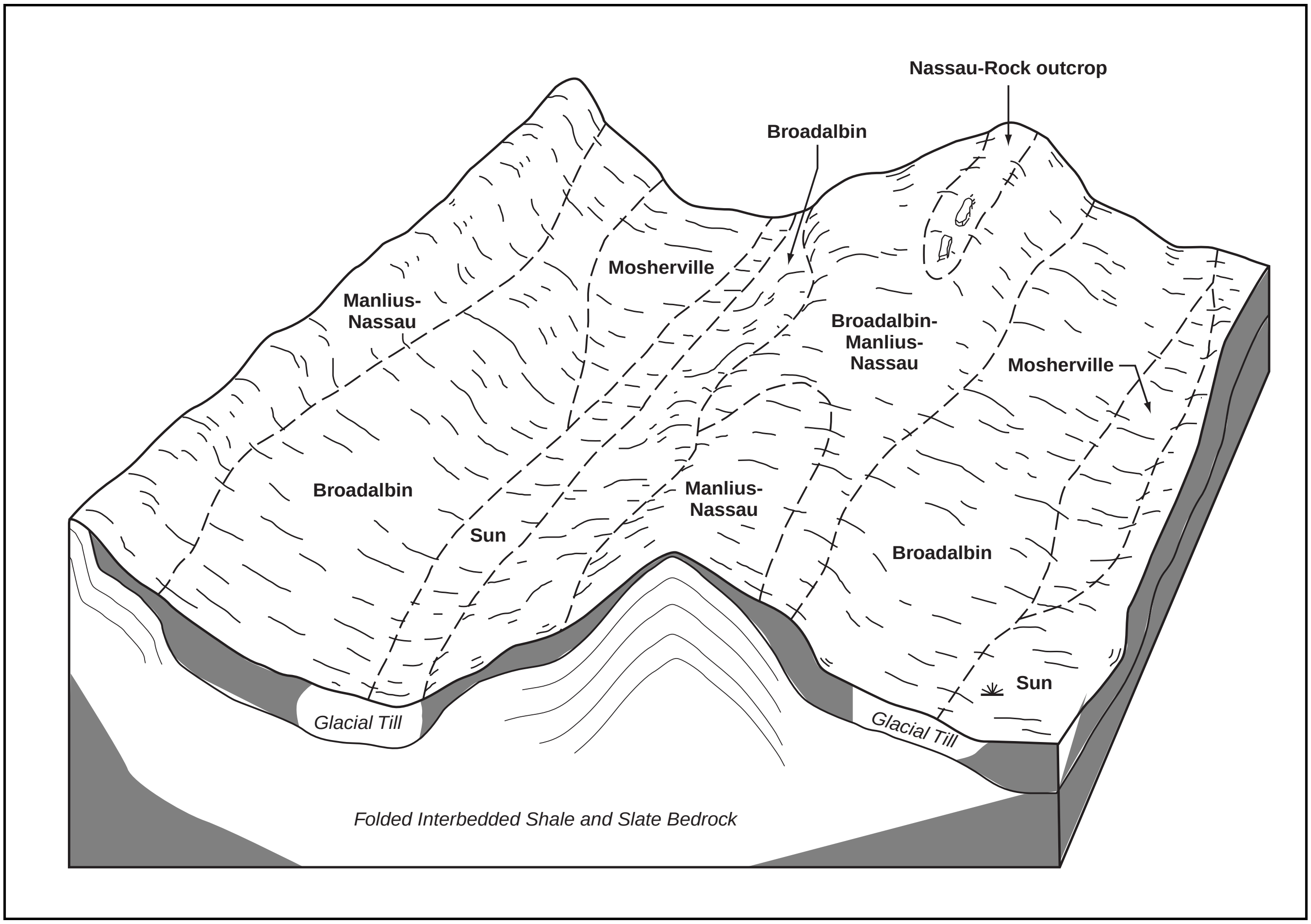


Figure 4.—Typical relationship of soils and underlying material in the Broadalbin-Mosherville-Sun general soil map unit.

deep Manlius soils are on ridgetops and sides of folded shale bedrock controlled landforms. Moderately deep Hornell soils are somewhat poorly drained in nearly level areas of shale bedrock controlled till plains.

Many areas of this map unit are farmed. Some areas are in woodland and some are idle. These soils are moderately suited to crops, hay and pasture. Wetness and erosion are the main limitations to crop production.

Wetness and slope severely limit the use of some parts of this unit for community development and recreational uses.

5. Mosherville-Hornell

Dominantly nearly level to gently sloping, somewhat poorly drained, medium and moderately fine textured soils, which are very deep to moderately deep over shale bedrock

These soils formed in shale glacial till. The landscape is a broad flat plain. The topography is complex because of the underlying folded shale and slate bedrock. Slope is mainly 0 to 8 percent.

This unit makes up about 1.6 percent of the county. It is about 60 percent Mosherville soils, 25 percent Hornell soils, and 15 percent minor soils.

The nearly level to gently sloping Mosherville soils are very deep, somewhat poorly drained, and have a dense substratum. The rate of water movement is moderate to slow in the dense substratum. A high water table is at a depth of 0.5 to 1.5 feet in spring and during prolonged wet periods.

The nearly level Hornell soils are on broad, bedrock controlled glacially modified landforms. The soils are moderately deep and somewhat poorly drained. The rate of water movement is slow or very slow throughout. A seasonal high water table is at a depth of 0.5 to 1.5 feet in winter and spring.

Of minor extent in this unit are Broadalbin, Manlius, Allis and Sun soils. Broadalbin soils are well drained and moderately well drained and formed in compact glacial till on hilltops and convex areas of till plains.

Well drained Manlius soils and poorly drained Allis soils are moderately deep to shale on bedrock controlled landforms. Poorly drained and very poorly drained Sun soils are in depressions on till plains.

Many areas are wooded or idle. The soils are poorly suited to crops and pasture. Wetness, poor drainage, and slow permeability are the main limitations if this unit is used for crop production.

Seasonal wetness, slow or very slow permeability, and depth to bedrock limit community development. Wetness severely limits recreational uses.

6. Charlton-Galway-Chatfield

Dominantly gently sloping to moderately steep, well drained to somewhat excessively drained, medium textured soils, which are moderately deep to very deep over schist, gneiss, sandstone or limestone bedrock; on uplands

These soils formed in glacial till. The landscape consists of upland till plains; hills and bedrock controlled ridges. In places bedrock is exposed at the surface. Slope is mainly 3 to 25 percent.

This unit makes up about 15 percent of the county. It is about 37 percent Charlton soils, 7 percent Galway soils, 6 percent Chatfield soils, and 50 percent minor soils.

The gently sloping to hilly Charlton soils are on tops and sides of hills and ridges in the uplands. These soils are very deep and well drained. The rate of water movement is moderate or moderately rapid. The water table is at a depth of more than 6 feet.

The gently sloping Galway soils are on bedrock controlled till plains where the soil is 20 to 40 inches deep over calcareous sandstone or limestone. The soils are moderately deep and well drained. The rate of water movement is moderate. Scattered exposures of bedrock are visible in places, particularly where faults occur. The water table is at a depth of more than 6 feet.

The gently sloping to hilly Chatfield soils are on hills and ridges where schist or gneiss bedrock is at a depth of 20 to 40 inches. These soils are moderately deep and well drained to somewhat excessively drained. The rate of water movement is moderate or moderately rapid. The water table is at a depth of more than 6 feet.

Of minor extent in this unit are Sutton, Hollis, Farmington, and Newstead soils. Sutton soils are moderately well drained and on lower side slopes of hills. Hollis and Farmington soils are 10 to 20 inches deep to bedrock on tops of low hills and till plains. Somewhat poorly drained Newstead soils are moderately deep to bedrock in low-lying areas of till plains.

Many areas of this unit are farmed, but others are idle or wooded. Generally, the soils are well suited to crops and pasture for dairy or horse farms. Slope, erosion, droughtiness, and depth to bedrock are the main limitations for farming.

Surface stones, depth to bedrock, and slope limit community development and recreational uses.

7. Berkshire-Becket-Tunbridge

Dominantly strongly sloping to steep, well drained, medium textured soils, some of which are very deep and have a firm substratum, and some of which are moderately deep over bedrock; in the higher elevations of the Adirondack foothills

These soils formed in glacial till. The landscape is broad sloping hilltops, hillsides and tops of ridges. Slope is mainly 8 to 35 percent.

This unit makes up about 36 percent of the county. It is about 27 percent Berkshire soils, 20 percent Becket soils, 15 percent Tunbridge soils and 38 percent minor soils and large bodies of water (fig.5).

The strongly sloping to steep Berkshire soils are on hilltops, ridges, broad benches, and sides of hills and mountains. The soils are very deep and well drained. The rate of water movement is moderate or moderately rapid. The water table is at a depth of more than 6 feet.

The strongly sloping to steep Becket soils are on hillsides, convex hilltops and mountainsides. These soils are very deep and well drained and have a dense substratum. The rate of water movement is moderate in the solum and moderately slow and slow in the compact substratum. A seasonal high water table is at a depth of 2.0 to 3.5 feet for very brief periods in the spring.

The strongly sloping to steep Tunbridge soils are on the tops and sides of ridges, hills and mountains. The soils are moderately deep and well drained. Bedrock is at a depth of 20 to 40 inches. The rate of water movement is moderate to moderately rapid. Scattered exposures of bedrock are visible in places, particularly on crests of ridges and on the top of knolls and mountains.

Of minor extent in this map unit are Bice, Woodstock, Skerry, Lyman and Lyme soils. Bice soils are similar to Berkshire soils except they are brown in the subsoil. Woodstock soils are shallow, somewhat excessively drained and are commonly on the upper part of hillsides or tops of hills and ridges. Moderately well drained Skerry soils are along lower slopes and in nearly level areas of till plains. Shallow to bedrock

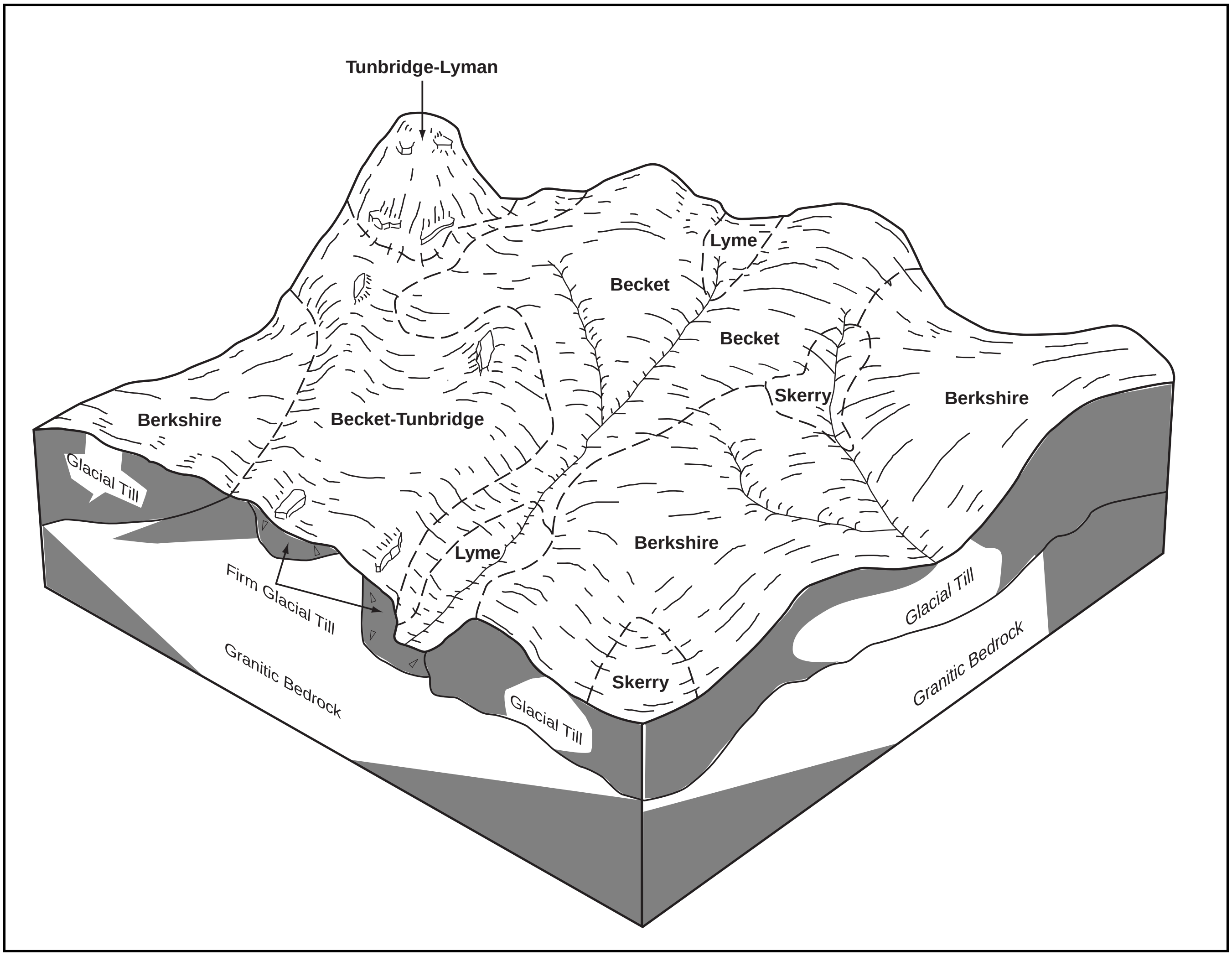


Figure 5.—Typical relationship of soils and underlying material in the Berkshire-Becket-Tunbridge general soil map unit, which is generally at an elevation above 1,000 feet.

Lyman soils are commonly on the upper part of hillsides or tops of hills and ridges. Lyme soils are poorly drained and are in low, wet areas.

Most areas of this map unit are in woodland. Many areas that had been cleared for farming are reverting to woodland, are idle fields, or are used for pasture. The main limitation to farming is the relatively short growing season at elevations of 1000 to 1500 feet. Other limitations to farming are slope, and stones and boulders on the surface. Some areas are used for recreation or rural housing. The main limitations for these uses are large stones and boulders on the surface, slope, and shallow soils.

Surface stones and boulders, slope, and shallow soils limit community development and recreational uses.

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. 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.

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 the principal hazards and limitations to be considered in 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 detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Broadalbin silt loam, 3 to 8 percent slopes is a phase of the Broadalbin series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Bernardston-Manlius-Nassau complex, undulating is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Oakville and Windsor soils, 25 to 35 percent slopes is an undifferentiated group in this survey area.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Pits, sand and gravel are an example.

Several tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

ALA—Allagash fine sandy loam, nearly level

This very deep, well drained soil formed in water sorted sand. It is on glacial outwash plains and terraces in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 30 acres and are rectangular or oval. Slope ranges from 0 to 3 percent.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 1 inch, black moderately decomposed organic material
1 to 3 inches, light brownish gray fine sandy loam

Subsoil:
3 to 5 inches, very dusky red loam
5 to 19 inches, dark reddish brown loam
19 to 35 inches, yellowish brown fine sandy loam

Substratum:
35 to 44 inches, light olive brown fine sand
44 to 72 inches, light yellowish brown fine sand

Included with this soil in mapping are small areas of similar soils which are moderately well drained. Also included are sandy Windsor soils and gravelly Hinckley soils at elevations below 1000 feet. Included areas are up to 10 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate in the mineral surface and subsoil, and rapid in the substratum
Available water capacity (average for 40-inch profile): moderate or high
Soil reaction: very strongly acid to slightly acid
Surface runoff: slow
Erosion hazard: slight
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested or covered with native grasses. Some areas are used as borrow pits or are being used as sites for residential development.

Cropland

This map unit is very well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. Use of cover crops or sod-forming crops, and return of crop residues to the soil help to promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, timely deferment of grazing, nutrient management, and weed control will help increase forage yields.

Recreation

This map unit is not limited for use as recreational sites.

Woodland

The potential productivity for eastern white pine is very high. This map unit is moderately suited for log landings because of relatively low soil strength within the upper soil profile. Additional coarse-grained material may be needed in places to strengthen landings, roads, or other structures that support heavy loads. Trees to manage include eastern white pine, European larch, and Scotch pine.

Dwellings with basements

This map unit is not limited for use as a site for dwellings.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. This map unit is also somewhat limited by restricted permeability caused by an abrupt change in soil texture between layers. This condition may result in pollution of the groundwater. Alternative septic system designs should be considered to insure adequate filtering of effluent. Selection of sites in less permeable included or adjoining areas may reduce the limitations.

The capability subclass is 1.

ALC—Allagash fine sandy loam, strongly sloping

This very deep, well drained soil formed in water sorted sand. It is on glacial outwash plains and terraces in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 30 acres and are rectangular or oval. Slope ranges from 3 to 15 percent.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 1 inch, black moderately decomposed organic material
1 to 3 inches, light brownish gray fine sandy loam

Subsoil:
3 to 5 inches, very dusky red loam
5 to 19 inches, dark reddish brown loam
19 to 35 inches, yellowish brown fine sandy loam

Substratum: 35 to 44 inches, light olive brown fine sand
44 to 72 inches, light yellowish brown fine sand

Included with this soil in mapping are small areas of sandy Windsor soils and gravelly Hinckley soils at elevations below 1000 feet. Included areas are up to 10 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate in the mineral surface and subsurface, and rapid in the substratum
Available water capacity (average for 40-inch profile): moderate or high
Soil reaction: very strongly acid to slightly acid
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested or covered with native grasses. Some areas are used as borrow pits or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables; although, crop varieties may be limited by the relatively short growing season in the higher elevation. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This soil is somewhat limited for use as camp areas, picnic areas, and golf fairways, and is very limited for playgrounds because of the slope. Grading and smoothing at camp, picnic and playground sites will be needed in most areas of this map unit.

Woodland

The potential productivity for eastern white pine is very high. This map unit is moderately suited for log landings because of slope and relatively low soil strength within the upper soil profile. Additional coarse-grained material and grading may be needed in places to strengthen landings, roads or other structures that support heavy loads. There is also a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include eastern white pine, European larch, and Scotch pine.

Dwellings with basements

This map unit is somewhat limited for dwellings because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is very limited as a site for septic tank absorption fields because of the filtering capacity of the soil. This map unit is also somewhat limited by both slope and the restricted permeability caused by an abrupt change in soil texture between layers. This condition may result in pollution of groundwater. Alternative septic system designs should be considered to insure adequate filtering of effluent. Selecting sites in less permeable included or adjoining areas may reduce the limitations.

The capability subclass is 3e.

ALE—Allagash fine sandy loam, steep

This very deep, well drained soil formed in water sorted sand. It is on glacial outwash plains and terraces in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 30 acres and are rectangular. Slope ranges from 15 to 35 percent, but is dominantly greater than 20 percent.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 1 inch, black moderately decomposed organic material
1 to 3 inches, light brownish gray fine sandy loam

Subsoil:
3 to 5 inches, very dusky red loam
5 to 19 inches, dark reddish brown loam
19 to 35 inches, yellowish brown fine sandy loam

Substratum:
35 to 44 inches, light olive brown fine sand
44 to 72 inches, light yellowish brown fine sand

Included with this soil in mapping are small areas of sandy Windsor soils and gravelly Hinckley soils at elevations below 1000 feet. Included areas are up to 10 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate in the mineral surface and subsoil, rapid in the substratum
Available water capacity (average for 40-inch profile): moderate or high
Soil reaction: very strongly acid to slightly acid
Surface runoff: very rapid
Erosion hazard: very severe
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested or covered with native grasses. Some areas are used as borrow pits.

Cropland

This map unit is not suited to cultivated crops because of slope. On long, poorly vegetated slopes, this soil erodes easily. Use of sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is poorly suited to pasture. Slope causes a hazard of erosion if sod cover is not maintained. Proper stocking rates and timely deferment of grazing will help maintain sod cover and reduce the risk of erosion.

Recreation

All uses are very limited because of slope. Extensive grading and smoothing will be needed in most areas of this map unit for playgrounds, campsites and picnic areas. Water erosion is a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity for eastern white pine is very high. This map unit is poorly suited for log landings and natural road surfaces because of slope. This map unit is not suited to mechanical planting because of steep slope. Establishing log landings on nearby level or gently sloping areas will provide for a more efficient operation at less cost. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures can be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include eastern white pine, European larch, and Scotch pine.

Dwellings with basements

This map unit is very limited for dwellings because of slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil, the steep slope, and the restricted permeability that is caused by an abrupt change in soil texture between layers. This condition may result in the pollution of groundwater. Selection of an alternate site should be considered.

The capability subclass is 6e.

As—Allis silt loam

This moderately deep, nearly level, poorly drained soil formed in glacial till that is 20 to 40 inches thick over soft shale bedrock. It is on till plains in the uplands. Slope ranges from 0 to 3 percent. Individual areas range mainly from 5 to 20 acres and are oval or irregular shaped.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 9 inches, dark grayish brown silt loam

Subsoil:
9 to 16 inches, mottled, gray silty clay
16 to 25 inches, mottled, gray very channery silty clay

Substratum:
25 to 35 inches, gray, soft, rippable, thin-bedded decomposing shale bedrock
35 inches, gray soft shale bedrock

Included with this soil in mapping are small areas of somewhat poorly drained Hornell soils and well drained Manlius soils, both of which are 20 to 40 inches deep to bedrock. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: slow or very slow throughout
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to moderately acid
Surface runoff: medium
Erosion hazard: slight
Depth to water table: at the surface to 1 foot deep at some time during November through June
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil are wooded. Some areas have been cleared and are used as pasture.

Cropland

This map unit is poorly suited to cultivated crops. Wetness, especially in the spring, limits the use of heavy equipment for cultivation, and restricts rooting depth. Installation of subsurface drainage systems can lower the water table if adequate outlets can be designed. Areas of this map unit may be considered valuable wetland habitat.

Pasture

This map unit is moderately suited to pasture. Proper stocking rates and timely deferment of grazing during the late fall and spring can help prevent compaction and damage to the sod, and maintain forage yields.

Recreation

This map unit is very limited for most recreational uses because of wetness or the depth to saturated zone. Campsites and picnic areas are also very limited because of restricted permeability. The addition of fill material and improved drainage will be needed in most areas to make these uses functional. A higher, drier site should be considered for these uses.

Woodland

The potential productivity for red maple is moderate. This map unit is poorly suited for log landings and natural road surfaces because of wetness and low soil strength. Improved drainage and the addition of fill material may be needed in most areas of this unit. Higher, more-convex positions in the landscape should be considered. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include northern white cedar and white spruce.

Dwellings with basements

This map unit is very limited for dwellings because of the depth to saturated zone. Selection of sites in better drained, adjoining areas may reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability, depth to saturated zone, and depth to bedrock. Selecting sites that are deeper and in better-drained adjoining areas may reduce these limitations.

The capability subclass is 4w.

BCC—Becket sandy loam, strongly sloping, very bouldery

This very deep, well drained soil formed in compact glacial till. It is on mountainsides, ridges, and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 100 acres and are rectangular to irregular shaped. Boulders and stones are 10 to 30 feet apart on the surface. Slope ranges from 3 to 15 percent.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 2 inches, slightly decomposed mat of hardwood leaves
2 to 4 inches, black sandy loam

Subsurface layer:
4 to 5 inches, reddish gray sandy loam

Subsoil:
5 to 7 inches, dark brown loam
7 to 15 inches, dark brown sandy loam
15 to 27 inches, dark brown gravelly sandy loam
27 to 32 inches, yellowish brown sandy loam

Substratum:
32 to 72 inches, mottled, olive brown, compact gravelly sandy loam

Included with this soil in mapping are small areas of moderately well drained Skerry soils at the base of slopes. Also included are areas that have been cleared of surface stones, areas of friable Berkshire soils, and moderately deep Tunbridge soils. Included areas are up to 10 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the mineral surface and subsoil, and moderately slow or slow in the compact substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to slightly acid in the surface and subsoil, and very strongly acid to slightly acid in the substratum
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: 2 to 3.5 feet at some time during March and April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil are forested. Some areas are used as pasture on small farms, or are being used as sites for residential development.

Cropland

This map unit is not suited to cultivated crops. The main limitations are surface boulders and stones and its relatively short growing season in the high elevations. The use of sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

Most areas of this map unit are poorly suited to pasture. Large surface stones and boulders make management difficult, and the short growing season reduces available forage. Stone clearing and rotational grazing will help to improve forage conditions.

Recreation

This map unit is very limited for playground use and somewhat limited for most other recreation use. Grading and smoothing for camp, picnic and playground sites will be needed in most areas of this map unit. Water erosion may be a concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity for eastern white pine is very high. This map unit is moderately suited for log landings, natural road surfaces, and mechanical planting because of slope and large surface stones. Some stone clearing and grading may be necessary for efficiently processing logs. The hazard of erosion on roads and trails is also moderate because of slope. Water control structures can be installed to divert flowing water away from these passages. This unit has a moderate potential for seedling mortality because of soil reaction. Species selection should consider those trees that are tolerant to extremely acid soil conditions. Trees to manage include eastern white pine, red pine, and white spruce.

Dwellings with basements

This map unit is very limited for dwellings because of the depth to a thin saturated zone above the dense substratum. Tile drains around foundation footings and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a thin saturated zone above the denser substratum, particularly in the spring. This map unit is somewhat limited by the restricted permeability in the substratum of the Becket soils. Alternative septic system designs that properly filter effluent above the substratum, and drainage to intercept seepage should be considered. The capability subclass is 6s.

BCE—Becket sandy loam, steep, very bouldery

This very deep, well drained soil formed in compact glacial till. It is on mountainsides, ridges, and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 100 acres and are rectangular to irregular shaped. Boulders and stones are 10 to 30 feet apart on the surface. Slope ranges from 15 to 35 percent, but are dominantly greater than 20 percent.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, slightly decomposed mat of hardwood leaves
2 to 4 inches, black sandy loam

Subsurface layer:
4 to 5 inches, reddish gray sandy loam

Subsoil:
5 to 7 inches, dark brown loam
7 to 15 inches, dark brown sandy loam
15 to 27 inches, dark brown gravelly sandy loam
27 to 32 inches, yellowish brown sandy loam

Substratum:
32 to 72 inches, mottled, olive brown, compact gravelly sandy loam

Included with this soil in mapping are small areas of moderately well drained Skerry soils at the base of slopes. Also included are areas that have been cleared of surface stones, areas of friable Berkshire soils, and moderately deep Tunbridge soils. Included areas are up to 10 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the mineral surface and subsoil, and moderately slow or slow in the compact substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to slightly acid in the surface and subsoil, and very strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: 2 to 3.5 feet at some time during March and April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil are forested.

Cropland

This map unit is not suited to cultivated crops or hay. The main limitations are slope, surface boulders and stones, and the relatively short growing season.

Pasture

This map unit is poorly suited to pasture. Slope as well as large surface stones and boulders make management difficult and the short growing season reduces available forage. Stone clearing and rotational grazing will help to improve forage conditions.

Recreation

Most recreation uses are very limited because of slope. Extensive grading and smoothing will be needed for playgrounds, campsites and picnic areas. Large surface stones may also have to be removed from parts of this unit. Water erosion is a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity for eastern white pine is very high. This map unit is poorly suited for log landings and natural road surfaces because of slope. This map unit is not suited to mechanical planting because of steep slopes. Establishing log landings on nearby level or gently sloping areas will provide for a more efficient operation at less cost. Also, erosion on roads and trails is severe because of slope. Water control structures can be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include eastern white pine, red pine, and white spruce.

Dwellings with basements

This map unit is very limited for dwellings because of slope and the depth to a thin saturated zone above the dense substratum. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop. Tile drains around foundation footings and diversion ditches may alleviate seepage.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of slope and the depth to a thin saturated zone above the denser substratum, particularly in the spring. It is somewhat limited by the restricted permeability in the substratum of the Becket soils. Less sloping areas and alternative septic system designs that properly filter effluent above the substratum should be considered.

The capability subclass is 7s.

BEC—Becket-Tunbridge complex, strongly sloping, very bouldery

This map unit consists of very deep, well drained Becket soils and moderately deep, well drained Tunbridge soils. They are on bedrock-controlled mountains, ridges, and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 20 to 100 acres and are oval or irregular shaped. Boulders are 10 to 30 feet apart on the surface. Slope ranges from 3 to 15 percent.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 40 percent Becket soils, 40 percent Tunbridge soils, 1 percent rock outcrop, and 19 percent other soils.

The typical sequence, depth, and composition of the layers of the Becket soils are as follows—

Surface layer:
0 to 2 inches, slightly decomposed mat of hardwood leaves
2 to 4 inches, black sandy loam

Subsurface layer:
4 to 5 inches, reddish gray sandy loam

Subsoil:
5 to 7 inches, dark brown loam
7 to 15 inches, dark brown sandy loam
15 to 27 inches, dark brown gravelly sandy loam
27 to 32 inches, yellowish brown sandy loam

Substratum:
32 to 72 inches, mottled, olive brown, compact gravelly sandy loam

The typical sequence, depth, and composition of the layers of the Tunbridge soils are as follows—

Surface layer:
0 to 2 inches, slightly decomposed organic mat of hardwood leaves
2 to 4 inches, very dark gray highly decomposed organic material
4 to 6 inches, dark brown loam

Subsurface layer:
6 to 7 inches, reddish gray fine sandy loam

Subsoil:
7 to 9 inches, dark reddish brown loam
9 to 16 inches, dark brown, strong brown and yellowish red sandy loam
16 to 26 inches, dark brown sandy loam

Substratum:
26 to 31 inches, dark yellowish brown sandy loam

Bedrock:
31 inches, unweathered gneiss bedrock

Included with this soil in mapping are small areas of very deep, moderately well drained Skerry soils at the base of slopes and in slight depressions, shallow Lyman soils along ridge tops, and poorly drained Lyme soils along drainageways and in depressions. Also included are areas of Berkshire soils which are friable in the substratum, and areas of soil which are less than 10 inches thick. Included areas are up to 10 acres and make up about 20 percent of the unit.

Soil Properties

Becket soils

Permeability: moderate in the mineral surface and subsoil, and moderately slow or slow in the compact substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to slightly acid in the surface and subsoil, and very strongly acid to slightly acid in the substratum
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: 2 to 3.5 feet at some time during March and April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Tunbridge soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum
Surface runoff: slow to medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil are forested.

Cropland

This map unit is not suited to cultivated crops. The main limitations are surface boulders and stones and its relatively short growing season in the high elevations. Use of sod-forming crops and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

Most areas of this map unit are poorly suited to pasture. Large surface stones and boulders make management difficult, and the short growing season reduces available forage. Stone clearing and rotational grazing will help to improve forage conditions.

Recreation

Camp and picnic areas as well as some other uses are somewhat limited by slope and large surface stones. Playgrounds are very limited by slope. Grading, smoothing, and stone clearing at camp, picnic and playground sites will be needed in most areas of this map unit. Water erosion is a concern on heavily used paths and trails, especially in areas of Tunbridge soils. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity for eastern white pine is high. This map unit is moderately suited for log landings because of slope and large stones. Some stone clearing and grading may be necessary for processing logs. The hazard of erosion on roads and trails is also moderate because of slope. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, white spruce, and eastern white pine.

Dwellings with basements

This map unit is very limited for dwellings because of the depth to bedrock or the depth to a thin saturated zone above the dense substratum. In the very deep areas of this unit, tile drains around foundation footings and sloping the land away from buildings may help to reduce seepage problems.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a thin saturated zone above the denser substratum of the Becket soils, and the depth to bedrock in the Tunbridge soils. Alternative septic system designs that properly filter effluent above the substratum in the deeper areas of this unit, and drainage to intercept seepage should be considered.

The capability subclass is 6s.

BEE—Becket-Tunbridge complex, steep, very bouldery

This unit consists of very deep, well drained Becket soils and moderately deep, well drained Tunbridge soils. They are on bedrock-controlled mountains ridges and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 20 to 100 acres and are oval or irregular shaped. Boulders are 10 to 30 feet apart on the surface. Slope ranges from 15 to 35 percent, but are dominantly greater than 19 percent.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 40 percent Becket soils, 40 percent Tunbridge soils, 1 percent rock outcrop, and 19 percent other soils.

The typical sequence, depth, and composition of the layers of the Becket soils are as follows—

Surface layer:
0 to 2 inches, slightly decomposed mat of hardwood leaves
2 to 4 inches, black sandy loam

Subsurface layer:
4 to 5 inches, reddish gray sandy loam

Subsoil:
5 to 7 inches, dark brown loam
7 to 15 inches, dark brown sandy loam
15 to 27 inches, dark brown gravelly sandy loam
27 to 32 inches, yellowish brown sandy loam

Substratum:
32 to 72 inches, mottled, olive brown, compact gravelly sandy loam

The typical sequence, depth, and composition of the layers of the Tunbridge soils are as follows—

Surface layer:
0 to 2 inches, slightly decomposed organic mat of hardwood leaves
2 to 4 inches, very dark gray highly decomposed organic material
4 to 6 inches, dark brown loam

Subsurface layer:
6 to 7 inches, reddish gray fine sandy loam

Subsoil:
7 to 9 inches, dark reddish brown loam
9 to 16 inches, dark brown, strong brown and yellowish red sandy loam
16 to 26 inches, dark brown sandy loam

Substratum:
26 to 31 inches, dark yellowish brown sandy loam

Bedrock:
31 inches, unweathered gneiss bedrock

Included with this soil in mapping are small areas of very deep, moderately well drained Skerry soils at the base of slopes and in slight depressions, shallow Lyman soils along ridge tops, and poorly drained Lyme soils along drainageways and in depressions. Also included are areas of Berkshire soils which are friable in the substratum, and areas of soil which are less than 10 inches deep. Included areas are up to 10 acres and make up about 20 percent of the unit.

Soil Properties

Becket soils

Permeability: moderate in the mineral surface and subsoil, and moderately slow or slow in the compact substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to slightly acid in the surface and subsoil, and very strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: 2 to 3.5 feet at some time during March and April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Tunbridge soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil are forested.

Cropland

This map unit is not suited to cultivated crops or hay. The main limitations are slope, surface boulders and stones, and the relatively short growing season.

Pasture

This map unit is poorly suited to pasture. Slope, large surface stones and boulders make management difficult, and the short growing season reduces available forage.

Recreation

Most recreational uses are very limited because of slope. Extensive grading and smoothing will be needed for playgrounds, campsites and picnic areas. Water erosion is a management concern on heavily used paths and trails, especially in the Tunbridge part. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity for eastern white pine is high. This map unit is poorly suited for log landings and natural road surfaces because of slope. This unit is not suited to mechanical planting because of steep slope. Establishing log landings on nearby level or gently sloping areas will provide for a more efficient operation at less cost. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures can be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Depth to bedrock in the Tunbridge part is a severe limitation for road construction that may necessitate blasting. Trees to manage include red pine, white spruce, and eastern white pine.

Dwellings with basements

This soil is very limited for dwellings because of slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of slope, the depth to a thin saturated zone above the denser substratum in the Becket soils, and depth to bedrock in the Tunbridge soils. Less sloping areas and alternative septic system designs that properly filter effluent above the substratum should be considered.

The capability subclass is 7s.

BHC—Berkshire loam, strongly sloping, very bouldery

This very deep, well drained soil formed in stony glacial till. It is on mountainsides, ridges and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 50 acres and are rectangular. Slope ranges from 3 to 15 percent. Boulders are 10 to 30 feet apart on the surface.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 2 inches, moderately decomposed mat of leaves and pine needles
2 to 5 inches, black loam

Subsurface:
5 to 6 inches, brown fine sandy loam

Subsoil:
6 to 9 inches, dark reddish brown loam
9 to 21 inches, dark brown and dark yellowish brown loam
21 to 30 inches, dark yellowish brown fine sandy loam
30 to 32 inches, mottled, light olive brown gravelly fine sandy loam

Substratum:
32 to 72 inches, mottled, yellowish brown gravelly fine sandy loam

Included with this soil in mapping are small areas of moderately well drained Skerry soils. Also included are areas of compact Becket soils, moderately deep Tunbridge soils, and areas that have been cleared of surface boulders and stones. Included areas are up to 10 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate to moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): high
Soil reaction: extremely acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. A few areas are being used as sites for residential development.

Cropland

This map unit is not suited to cultivated crops. The main limitations are surface boulders and stones and the relatively short growing season in the high elevations. Use of sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

Most areas of this map unit are poorly suited to pasture. Large surface stones and boulders make management difficult, and the short growing season reduces available forage. Stone clearing and rotational grazing will help to improve forage conditions.

Recreation

This map unit is somewhat limited for use as camp and picnic areas and is very limited for playgrounds. Grading and smoothing at camp, picnic and playground sites will be needed in most areas of this map unit. Large surface stones will also have to be removed from parts of this unit. Water erosion is a concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity is very high for eastern white pine. This map unit is moderately suited for log landings, natural road surfaces, and mechanical planting because of slope, large surface stones, and the relatively low soil strength within the upper soil profile. Additional coarse-grained material and grading may be needed in places to strengthen landings and roads or other structures that support heavy loads and planting. Some stone clearing may be necessary for efficiently processing logs. The hazard of erosion on roads and trails is also moderate because of slope. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, white spruce and balsam fir.

Dwellings with basements

This map unit is somewhat limited for dwellings because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is somewhat limited by slope. To increase filtering capacity, absorption field tiles should be installed on lesser sloping areas and designed to follow the contour, where possible.

The capability subclass is 6s.

BHE—Berkshire loam, steep, very bouldery

This map unit is very deep, well drained and formed in stony glacial till. It is on mountainsides, ridges, and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 50 acres and are rectangular. Slope ranges from 15 to 35 percent. Boulders are 10 to 30 feet apart on the surface.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 2 inches, moderately decomposed mat of leaves and pine needles
2 to 5 inches, black loam

Subsurface:
5 to 6 inches, brown fine sandy loam

Subsoil:
6 to 9 inches, dark reddish brown loam
9 to 21 inches, dark brown and dark yellowish brown loam
21 to 30 inches, dark yellowish brown fine sandy loam
30 to 32 inches, mottled, light olive brown gravelly fine sandy loam

Substratum:
32 to 72 inches, mottled, yellowish brown gravelly fine sandy loam

Included in mapping are small areas of moderately well drained Skerry soils. Also included are areas of compact Becket soils, and moderately deep Tunbridge soils. Included soils are up to 10 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): *high*
Soil reaction: extremely acid to moderately acid
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested.

Cropland

This map unit is not suited to cultivated crops or hay. The main limitations are slope, surface boulders and stones, and the relatively short growing season.

Pasture

This map unit is poorly suited to pasture. Slope as well as large surface stones and boulders make management difficult and the short growing season reduces available forage.

Recreation

Most recreational uses are very limited because of slope. Extensive grading and smoothing will be needed for playgrounds, campsites and picnic areas. Water erosion is a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity is very high for eastern white pine. This map unit is poorly suited for log landings and natural road surfaces because of slope. This unit is not suited to mechanical planting because of steep slope. Establishing log landings on nearby level or gently sloping areas will provide for a more efficient operation at less cost. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures can be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible.

Trees to manage include red pine, white spruce and balsam fir.

Dwellings with basements

This map unit is very limited for dwellings because of slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited by slope. To increase filtering capacity, absorption field tiles should be installed on lesser sloping areas of included or nearby soils.

The capability subclass is 7s.

BLC—Berkshire-Tunbridge complex, strongly sloping, very bouldery

This map unit consists of very deep, well drained Berkshire soils and moderately deep, well drained Tunbridge soils. They are on bedrock-controlled mountains, ridges and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 20 to 100 acres and are oval or irregular shaped. Boulders are 10 to 30 feet apart on the surface. Slopes range from 3 to 15 percent.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The map unit consists of about 40 percent Berkshire soils, 40 percent Tunbridge soils, 1 percent rock outcrop, and 19 percent other soils.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Berkshire soils

Surface layer:
0 to 2 inches, moderately decomposed mat of leaves and pine needles
2 to 5 inches, black loam

Subsurface:
5 to 6 inches, brown fine sandy loam

Subsoil:
6 to 9 inches, dark reddish brown loam
9 to 21 inches, dark brown and dark yellowish brown loam
21 to 30 inches, dark yellowish brown fine sandy loam
30 to 32 inches, mottled, light olive brown gravelly fine sandy loam

Substratum:
32 to 72 inches, mottled, yellowish brown gravelly fine sandy loam

Tunbridge soils

Surface layer:
0 to 2 inches, slightly decomposed organic mat of hardwood leaves
2 to 4 inches, very dark gray highly decomposed organic material
4 to 6 inches, dark brown loam

Subsurface layer:
6 to 7 inches, reddish gray fine sandy loam

Subsoil:
7 to 9 inches, dark reddish brown loam
9 to 16 inches, dark brown, strong brown and yellowish red sandy loam
16 to 26 inches, dark brown sandy loam

Substratum:
26 to 31 inches, dark yellowish brown sandy loam

Bedrock:
31 inches, unweathered gneiss bedrock

Included in mapping are small areas of very deep, moderately well drained Skerry soils at the base of slopes and in slight depressions, shallow Lyman soils on ridgetops, and poorly drained Lyme soils along drainageways and in depressions. Also included are areas of Becket soils which are very firm and compact in the substratum, and areas of soil which are less than 10 inches deep. Included areas are up to 10 acres and make up about 20 percent of the unit.

Soil Properties

Berkshire Soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): high
Soil reaction: extremely acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Tunbridge soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum
Surface runoff: slow to medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. Some areas are being used as sites for residential development.

Cropland

This map unit is not suited to cultivated crops. The main limitations are surface boulders and stones and the relatively short growing season in the high elevations. Use of sod-forming crops and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

Most areas of this map unit are poorly suited to pasture. Large surface stones and boulders make management difficult, and the short growing season reduces available forage. Stone clearing and rotational grazing will help to improve forage conditions.

Recreation

Camp and picnic areas as well as some other recreational uses are somewhat limited by slope and large surface stones. Playgrounds are very limited by slope. Grading, smoothing, and clearing stones at camp, picnic and playground sites will be needed in most areas of this map unit. Water erosion is a concern on heavily used paths and trails, especially in areas of Tunbridge soils. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity is very high for eastern white pine. This map unit is moderately suited for log landings because of slope and large stones. Some stone clearing and grading may be necessary for efficient processing of logs. The hazard of erosion on roads and trails is also moderate because of slope. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, white spruce, eastern white pine, and balsam fir.

Dwellings with basements

This unit is somewhat limited for dwellings in the Berkshire part of the map unit because of slope and very limited in the Tunbridge part because of the depth to bedrock. Placing the building in the deeper part of this unit will save on site preparation costs. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is somewhat limited in the Berkshire part by slope and very limited in the Tunbridge part by the depth to bedrock. Conventional systems will likely function better in the deeper Berkshire areas of this unit. To increase filtering capacity, absorption field tiles should be installed on lesser sloping areas and designed to follow the contour, where possible.

The capability subclass is 6s.

BLE—Berkshire-Tunbridge complex, steep, very bouldery

This map unit consists of very deep, well drained Berkshire soils and moderately deep, well drained Tunbridge soils. They are on bedrock-controlled mountains, ridges and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 20 to 100 acres and are oval or irregular shaped. Boulders are 10 to 30 feet apart on the surface. Slopes range from 15 to 35 percent but is dominantly greater than 19 percent.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 40 percent Berkshire soils, 40 percent Tunbridge soils, 1 percent rock outcrop, and 19 percent other soils.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Berkshire soils

Surface layer:
0 to 2 inches, moderately decomposed mat of leaves and pine needles
2 to 5 inches, black loam

Subsurface:
5 to 6 inches, brown fine sandy loam

Subsoil:
6 to 9 inches, dark reddish brown loam
9 to 21 inches, dark brown and dark yellowish brown loam
21 to 30 inches, dark yellowish brown fine sandy loam
30 to 32 inches, mottled, light olive brown gravelly fine sandy loam

Substratum:
32 to 72 inches, mottled, yellowish brown gravelly fine sandy loam

Tunbridge soils

Surface layer:
0 to 2 inches, slightly decomposed organic mat of hardwood leaves
2 to 4 inches, very dark gray highly decomposed organic material
4 to 6 inches, dark brown loam

Subsurface layer:
6 to 7 inches, reddish gray fine sandy loam

Subsoil:
7 to 9 inches, dark reddish brown loam
9 to 16 inches, dark brown, strong brown and yellowish red sandy loam
16 to 26 inches, dark brown sandy loam

Substratum:
26 to 31 inches, dark yellowish brown sandy loam

Bedrock:
31 inches, unweathered gneiss bedrock

Included in mapping are small areas of very deep, moderately well drained Skerry soils at the base of slopes and in slight depressions, shallow Lyman soils on ridgetops, and poorly drained Lyme soils along drainageways and in depressions. Also included are areas of Becket soils which are very firm and compact in the substratum, and areas of soil which are less than 10 inches deep. Included areas are up to 10 acres and make up about 20 percent of the unit.

Soil Properties

Berkshire soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): high
Soil reaction: extremely acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Tunbridge soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil are forested.

Cropland

This map unit is not suited to cultivated crops or hay. The main limitations are slope, surface boulders and stones, and the relatively short growing season.

Pasture

This map unit is poorly suited to pasture. Slope as well as large surface stones and boulders make management difficult and the short growing season reduces available forage.

Recreation

Most recreational uses are very limited because of slope. Extensive grading and smoothing will be needed for playgrounds, campsites and picnic areas. Water erosion is a management concern on heavily used paths and trails, especially in the Tunbridge part. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this map unit, where possible, to alleviate erosion.

Woodland

The potential productivity is very high for eastern white pine on the Berkshire soils and high in areas of Tunbridge soils. This map unit is poorly suited for log landings and natural road surfaces because of slope. This unit is not suited to mechanical planting because of steep slope. Establishing log landings on nearby level or gently sloping areas will provide for a more efficient operation at less cost. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures can be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Depth to bedrock in the Tunbridge part is a severe limitation for road construction that may necessitate blasting. Trees to manage include red pine, white spruce, eastern white pine, and balsam fir.

Dwellings with Basements

This map unit is very limited for dwellings because of slope and the depth to bedrock in the Tunbridge part. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Placing the building in the deeper Berkshire part of this unit may save onsite preparation costs. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited by slope and depth to bedrock in the Tunbridge part. Conventional systems will likely fail to operate properly unless placed in the deeper, less sloping inclusions of this unit. Alternate sites should be considered.

The capability subclass is 7s.

BmB—Bernardston silt loam, 3 to 8 percent slopes

This very deep, gently sloping, well drained soil formed in glacial till which has a dense substratum. It is on the top of hills in glacially modified uplands. Individual areas range mainly from 5 to 50 acres and are oval or rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 10 inches, brown silt loam

Subsoil:
10 to 16 inches, dark yellowish brown channery loam
16 to 26 inches, yellowish brown channery loam

Substratum:
26 to 72 inches, olive brown channery silt loam

Included with this soil in mapping are small areas of moderately well drained Pittstown soils in low areas and at the base of slopes, and Manlius soils which are less than 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 15 percent of the unit.

Soil Properties

Permeability: moderate in the solum, slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 2 feet at some time during February through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this map unit may erode easily. Cross slope tillage, the use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to a thin saturated zone. Playgrounds are very limited because of excessive slope. The addition of fill material or subsurface drainage will improve conditions for these uses. Some additional grading and smoothing will be needed, particularly for playground use.

Woodland

The potential productivity is moderate for sugar maple. This map unit is moderately suited for log landings because of wetness, slope, and relatively low strength. Improved drainage, leveling, or additional fill material may be needed in some areas of this unit. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include eastern white pine, white spruce, and eastern hemlock.

Dwellings with basements

This map unit is very limited for dwellings because of the depth to a thin saturated zone above the dense substratum. Tile drains around foundation footings and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a thin saturated zone above the denser substratum, particularly in the spring. It is somewhat limited by the restricted permeability in the substratum of the Bernardston soils. Alternative septic system designs that properly filter effluent above the substratum, and drainage to intercept seepage should be considered.

The capability subclass is 2e.

BmC—Bernardston silt loam, 8 to 15 percent slopes

This very deep, strongly sloping, well drained soil formed in glacial till which has a dense substratum. It is on the sides of hills in glacially modified uplands. Individual areas range mainly from 5 to 50 acres and are rectangular or irregular shaped.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 10 inches, brown silt loam

Subsoil:
10 to 16 inches, dark yellowish brown channery loam
16 to 26 inches, yellowish brown channery loam

Substratum:
26 to 72 inches, olive brown channery silt loam

Included in mapping are small areas of moderately well drained Pittstown soils in low areas and at the base of slopes, and Manlius soils which are less than 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 15 percent of the unit.

Soil Properties

Permeability: moderate in the solum, slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: 1.5 to 2 feet at some time during February through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this map unit erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to a thin saturated zone. Playgrounds are very limited because of excessive slope. The addition of fill material or subsurface drainage will improve conditions for these uses. Some additional grading and smoothing will be needed, particularly for playground use.

Woodland

The potential productivity is moderate for sugar maple. This map unit is moderately suited for log landings because of wetness, slope, and the relatively low soil strength. Improved drainage, leveling, or additional fill material may be needed in some areas of this unit. There is also a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include eastern white pine, white spruce, and eastern hemlock.

Dwellings with basements

This map unit is very limited for dwellings because of the depth to a thin saturated zone above the dense substratum. Tile drains around foundation footings and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a thin saturated zone above the denser substratum, particularly in the spring. It is somewhat limited by the restricted permeability in the substratum of the Bernardston soils. Alternative septic system designs that properly filter effluent above the substratum, and drainage to intercept seepage should be considered.

The capability subclass is 3e.

BmD—Bernardston silt loam, 15 to 25 percent slopes

This very deep, moderately steep, well drained soil formed in glacial till which has a dense substratum. It is on the sides of hills in glacially modified uplands. Individual areas range mainly from 10 to 50 acres and are irregular shaped.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 10 inches, brown silt loam

Subsoil:
10 to 16 inches, dark yellowish brown channery loam
16 to 26 inches, yellowish brown channery loam

Substratum:
26 to 72 inches, olive brown channery silt loam

Included in mapping are small areas of moderately well drained Pittstown soils in low areas and at the base of slopes, and Manlius soils which are less than 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 15 percent of the unit.

Soil Properties

Permeability: moderate in the solum, slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: 1.5 to 2 feet at some time during February through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used as pasture or are woodland. Some areas are used as cropland with stripcropping systems, or are being used as sites for residential development.

Cropland

The soils in this map unit are poorly suited to cultivated crops. On long, poorly vegetated slopes, these soils erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. If overgrazing occurs, erosion can be a hazard because of slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

Most uses are very limited because of slope. Extensive grading and smoothing will be needed in most areas of this map unit for playgrounds, campsites, picnic areas, and golf fairways. Water erosion may be a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity is moderate for sugar maple. This map unit is poorly suited for log landings, natural road surfaces, and mechanical planting because of slope. Establishing log landings on nearby level or gently sloping areas will provide for a more efficient operation at less cost. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures can be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include eastern white pine, white spruce, and eastern hemlock.

Dwellings with basements

This map unit is very limited for dwellings because of slope and the depth to a thin saturated zone above the dense substratum. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop. Tile drains around foundation footings and diversion ditches may alleviate seepage.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of slope and the depth to a thin saturated zone above the denser substratum, particularly in the spring. Less sloping areas and alternative septic system designs that properly filter effluent above the substratum should be considered.

The capability subclass is 4e.

BnB—Bernardston-Manlius-Nassau complex, undulating

This map unit consists of very deep, well drained Bernardston soils, moderately deep, well drained Manlius soils, and shallow, somewhat excessively drained Nassau soils. Slopes range from 3 to 8 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly oval and range from 10 to 30 acres.

The soils in this map unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Bernardston soils, 30 percent Manlius soils, 15 percent Nassau soils, and 5 percent other soils.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Bernardston soils

Surface layer:
0 to 10 inches, brown silt loam

Subsoil:
10 to 16 inches, dark yellowish brown channery loam
16 to 26 inches, yellowish brown channery loam

Substratum:
26 to 72 inches, olive brown channery silt loam

Manlius soils

Surface layer:
0 to 5 inches, dark brown channery silt loam

Subsoil:
5 to 18 inches, brown channery silt loam
18 to 21 inches, brown very channery silt loam

Substratum:
21 to 24 inches, yellowish brown extremely channery silt loam
24 inches, soft shale bedrock

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Included with this unit in mapping are small areas of very deep, moderately well drained Pittstown soils in depressions and on concave footslopes, and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 5 percent of the map unit.

Soil Properties

Bernardston soils

Permeability: moderate in the solum, slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 2 feet at some time during February through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Soil Properties

Manlius soils

Permeability: moderate throughout the soil
Available water capacity (average for 40-inch profile): low
Soil reaction: extremely acid to strongly acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: more than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Nassau soils

Permeability: moderate throughout the soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid or strongly acid throughout the soil
Surface runoff: medium
Erosion hazard: slight
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Many areas of this map unit are used for agriculture. Some areas are idle or wooded, orchards, or being used as residential building sites.

Cropland

The Bernardston part of this map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

The Bernardston part of this unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of the depth to bedrock in the Nassau part of this unit. The Manlius and Nassau soils are very limited for playgrounds because of the high gravel content in the soil. Gravel-free fill material placed in areas of campsites and picnic areas will improve conditions for these uses. A significant amount of high quality fill material may be necessary to provide if this unit is used as a site for playgrounds.

Woodland

The potential productivity is moderate for sugar maple. This map unit is only moderately suited to log landings because of slope, possible wetness, and the relatively low soil strength in the Bernardston part. Some grading may be necessary to efficiently stack and process logs. The Nassau part of this unit causes a severe limitation in road construction because of higher costs for excavating or blasting bedrock. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings because of the depth to bedrock in the Manlius and Nassau soils, and the depth to a thin seasonally saturated zone above the dense substratum in the Bernardston soils. Areas that are very deep to bedrock will be less expensive to develop. In the Bernardston part of this unit, tile drains around foundation footings and sloping the land away from buildings may help to reduce seepage problems.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a thin, seasonally saturated zone in the Bernardston soils, and the depth to bedrock in the Manlius and Nassau soils. It is somewhat limited by the restricted permeability in the substratum of the Bernardston soils. Inadequate filtration and treatment of sewage effluent may result. Selecting sites that are deeper and in well drained adjoining areas may reduce expenses for overcoming these limitations.

The capability subclass for Bernardston and Manlius is 2e, and for Nassau is 3s.

BnC—Bernardston-Manlius-Nassau complex, rolling

This map unit consists of very deep, well drained Bernardston soils, moderately deep, well drained Manlius soils, and shallow, somewhat excessively

Figure 6.—Landscapes of Bernardston-Manlius-Nassau are controlled by the underlying folded shale and slate bedrock. The wooded ridgetops generally are the shallow Nassau soil. The low-lying areas between knolls are wetter inclusions, and often form perennial streams as groundwater seeps into them in the spring and after rainy periods.

drained Nassau soils. Slopes range from 8 to 15 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly oval or rectangular and range from 10 to 50 acres.

The soils in this map unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Bernardston soils, 30 percent Manlius soils, 15 percent Nassau soils, and 5 percent other soils.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Bernardston soils

Surface layer:
0 to 10 inches, brown silt loam

Subsoil:
10 to 16 inches, dark yellowish brown channery loam
16 to 26 inches, yellowish brown channery loam

Substratum:
26 to 72 inches, olive brown channery silt loam

Manlius soils

Surface layer:
0 to 5 inches, dark brown, channery silt loam

Subsoil:
5 to 18 inches, brown channery silt loam
18 to 21 inches, brown very channery silt loam

Substratum:
21 to 24 inches, yellowish brown extremely channery silt loam
24 inches, soft shale bedrock

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Included in mapping are small areas of very deep, moderately well drained Pittstown soils in depressions and on concave footslopes, and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 5 percent of the map unit.

Soil Properties

Bernardston soils

Permeability: moderate in the solum, slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: 1.5 to 2 feet at some time during February through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Manlius soils

Permeability: moderate throughout the soil
Available water capacity (average for 40-inch profile): low
Soil reaction: extremely acid to strongly acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Nassau soils

Permeability: moderate throughout the soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid to strongly acid throughout the soil
Surface runoff: medium
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Many areas of this map unit are used for agriculture. Some areas are idle or wooded, orchards or being used as residential building sites.

Cropland

The Bernardston part of this unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth (fig. 6).

Pasture

The Bernardston part of this map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of the depth to bedrock in the Nassau part. Slope causes very limited use for playgrounds. Also, the Manlius and Nassau parts of this map unit are very limited for playgrounds because of high gravel content in the soil. Gravel-free fill material placed in areas of campsites and picnic areas will improve conditions for these uses. Grading and smoothing will be an additional expense in developing playgrounds. A significant amount of high quality fill material may be necessary to provide if this unit is used as a site for playgrounds.

Woodland

The potential productivity is moderate for sugar maple. This map unit is only moderately suited to log landings because of slope, possible wetness, and the relatively low soil strength in the Bernardston part. Some grading may be necessary to efficiently stack and process logs. The Nassau part of this unit has a severe limitation in road construction because of higher costs for excavating or blasting bedrock. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings because of the depth to bedrock in the Manlius and Nassau part, or the depth to a thin, seasonally saturated zone above the dense substratum in the Bernardston part. Areas that are very deep to bedrock will be less expensive to develop. In the Bernardston part of this unit, tile drains around foundation footings, diversion ditches, and sloping the land away from buildings may help to reduce seepage problems.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a thin, seasonally saturated zone in the Bernardston part, and the depth to bedrock in the Manlius and Nassau parts. It is somewhat limited by the restricted permeability in the substratum of the Bernardston soils. Inadequate filtration and treatment of sewage effluent may result. Selection of sites that are deeper and in well drained adjoining areas may reduce expenses for overcoming these limitations.

The capability subclass for Bernardston and Manlius is 3e, and for Nassau is 4e.

BnD—Bernardston-Manlius-Nassau complex, hilly

This map unit consists of very deep, well drained Bernardston soils; moderately deep, well drained to excessively drained Manlius soils; and shallow, somewhat excessively drained Nassau soils. Slopes range from 15 to 25 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly rectangular and range from 10 to 50 acres.

The soils in this map unit are in such an intricate pattern that it was not practical to separate them in mapping. The map unit consists of about 50 percent Bernardston soils, 30 percent Manlius soils, 15 percent Nassau soils, and 5 percent other soils.

The typical sequence, depth and composition of the layers of this map unit are as follows—

Bernardston soils

Surface layer:
0 to 10 inches, brown friable silt loam

Subsoil:
10 to 16 inches, dark yellowish brown channery loam
16 to 26 inches, yellowish brown channery loam

Substratum:
26 to 72 inches, olive brown silt loam

Manlius soils

Surface layer:
0 to 5 inches, dark brown, friable, channery silt loam

Subsoil:
5 to 18 inches, brown channery silt loam
18 to 21 inches, brown very channery silt loam

Substratum:
21 to 24 inches, yellowish brown extremely channery silt loam
24 inches, soft shale bedrock

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Included with this unit in mapping are small areas of very deep, moderately well drained Pittstown soils in depressions and on concave footslopes, and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 5 percent of the map unit.

Soil Properties

Bernardston soils

Permeability: moderate in solum, slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: 1.5 to 2 feet at some time during February through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Soil Properties

Manlius soils

Permeability: moderate throughout the soil
Available water capacity (average for 40-inch profile): low
Soil reaction: extremely acid to strongly acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Nassau soils

Permeability: moderate throughout the soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid to strongly acid throughout the soil
Surface runoff: rapid
Erosion hazard: very severe
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

A few areas of this map unit are used for agriculture. Most areas are idle or wooded, orchards, or being used as residential building sites.

Cropland

The Bernardston part of this unit is poorly suited to cultivated crops. On long, poorly vegetated slopes, these soils erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

The Bernardston part of this unit is moderately suited to pasture. If overgrazing occurs, erosion can be a hazard because of slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of the depth to bedrock in the Nassau part. Campsites, picnic areas, playgrounds and golf fairways are also very limited by the hilly slopes. The Manlius and Nassau parts of this map unit are very limited for playgrounds because of the high gravel content in the soil. Extensive grading and smoothing will be necessary in many areas, especially for developing playgrounds. Gravel-free fill material placed in areas of campsites and picnic areas will improve conditions for these uses. A significant amount of high quality fill material may be necessary to provide if this unit is used for playgrounds.

Woodland

The potential productivity for sugar maple is moderate. Log landings, natural road surfaces, and mechanical planting are poorly suited for this map unit because of slope. The Manlius and Nassau parts of this unit have a severe limitation in road construction because of higher costs for excavating or blasting bedrock. Establishing log landings at a nearly level or gently sloping area will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures may be installed to divert flowing water off and away from these passages. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings because of the hilly slopes, the depth to bedrock in the Manlius and Nassau part, and the depth to a thin, seasonally saturated zone above the dense substratum in the Bernardston part. Areas that are very deep to bedrock and less sloping will be less expensive to develop. In the Bernardston part of this unit, tile drains around foundation footings, diversion ditches, and sloping the land away from buildings may help to reduce seepage problems.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the hilly slope and depth to a thin, seasonally saturated zone in the Bernardston part, and the depth to bedrock in the Manlius and Nassau parts. Inadequate filtration and treatment of sewage effluent may result. Selecting a nearly level and deeper site in adjoining areas may reduce expenses for improving these limitations.

The capability subclass for Bernardston and Manlius is 4e, and for Nassau is 6e.

BOC—Bice loam, strongly sloping, stony

This very deep, well drained soil formed in stony glacial till. It is on hills, ridges, and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 40 acres and are rectangular. Stones are 30 to 100 feet apart on the surface. Slopes range from 3 to 15 percent.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 5 inches, dark yellowish brown loam

Subsoil:
5 to 18 inches, dark yellowish brown and strong brown fine sandy loam
18 to 25 inches, strong brown fine sandy loam
25 to 30 inches, dark yellowish brown fine sandy loam

Substratum:
30 to 72 inches, grayish brown fine sandy loam

Included with this soil in mapping are small areas of very deep, moderately well drained Schroon soils at the base of slopes and in slight depressions, and poorly drained Lyme soils along drainageways and in depressions. Also included are areas of Berkshire soils that have accumulated iron and organic matter in the subsoil. Included areas are up to 10 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. Some areas are used to grow corn or hay, or are used as pasture. Some areas are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. If surface stones are removed, it can be used to grow small grains, corn silage, hay, and some fruits and vegetables; although, crop varieties may be limited by the relatively short growing season. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This soil is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Stone removal, nutrient management, and weed control will help increase forage yields.

Recreation

This soil is somewhat limited for use as camp areas, picnic areas, and golf fairways, and is very limited for playgrounds. Grading and smoothing will be needed, especially at playground sites, in most areas of this map unit.

Woodland

The potential productivity is high for eastern white pine. This map unit is moderately suited to log landings, natural road surfaces, and mechanical planting because of slope. Some grading may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, white spruce, eastern hemlock, and European larch.

Dwellings with basements

This map unit is somewhat limited for dwellings because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is somewhat limited by slope. To increase filtering capacity, absorption field tiles should be installed on lesser sloping areas or designed to follow the contour of the slope, where possible.

The capability subclass is 3e.

BOE—Bice loam, steep, stony

This very deep, well drained soil formed in stony glacial till. It is on hills, ridges, and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 40 acres and are rectangular. Stones are 30 to 100 feet apart on the surface. Slopes range from 15 to 35 percent, but are dominantly greater than 20 percent.

The typical sequence, depth and composition of the layers of this soil are as follows—

Surface layer:
0 to 5 inches, dark yellowish brown loam

Subsoil:
5 to 18 inches, dark yellowish brown and strong brown fine sandy loam
18 to 25 inches, strong brown fine sandy loam
25 to 30 inches, dark yellowish brown fine sandy loam

Substratum:
30 to 72 inches, grayish brown fine sandy loam

Included with this soil in mapping are small areas of very deep, moderately well drained Schroon soils at the base of slopes and in slight depressions, and poorly drained Lyme soils along drainageways and in depressions. Also included are areas of Berkshire soils that have accumulated iron and organic matter in the subsoil. Included areas are up to 10 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: very severe
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. Some areas are used as pasture.

Cropland

This map unit is not suited to cultivated crops because of slope. On long, poorly vegetated slopes, this map unit erodes easily. Using sod-forming crops, and the returning of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is poorly suited to pasture. Slope causes a hazard of erosion if sod cover is not maintained. Proper stocking rates and timely deferment of grazing will help maintain sod cover and reduce the risk of erosion.

Recreation

Most uses are very limited because of the steep slope. Extensive grading and smoothing will be needed in most areas if this map unit is used as a site for playgrounds, campsites, picnic areas and golf fairways. Paths and trails should be routed around this unit or along the slope contour, where possible, to avoid soil erosion problems.

Woodland

The potential productivity is high for eastern white pine. This map unit is poorly suited for log landings and natural road surfaces because of slope. This unit is not suited to mechanical planting because of steep slope. Establishing log landings at a nearly level or gently sloping area will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of steep slope. Water control structures may be installed to divert flowing water off and away from these passages. Trees to manage include red pine, white spruce, eastern hemlock, and European larch.

Dwellings with basements

This map unit is very limited for dwellings because of slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited by slope. To increase the soil filtering capacity, absorption field tile should be installed on lesser sloping areas of included or nearby soils.

The capability subclass is 6e.

BPC—Bice-Woodstock complex, strongly sloping, stony

This unit consists of very deep, well drained Bice soils and shallow, somewhat excessively drained Woodstock soils. They are on bedrock-controlled hills, ridges and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 20 to 100 acres and are oval or irregular shaped. Stones are 30 to 100 feet apart on the surface. Slopes range from 3 to 15 percent.

The soils in this map unit are in such an intricate pattern that it was not practical to separate them in mapping. The map unit consists of about 50 percent Bice soils, 40 percent Woodstock soils and 10 percent other soils.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Bice soils

Surface layer:
0 to 5 inches, dark yellowish brown loam

Subsoil:
5 to 18 inches, dark yellowish brown and strong brown fine sandy loam
18 to 25 inches, strong brown fine sandy loam
25 to 30 inches, dark yellowish brown fine sandy loam

Substratum:
30 to 72 inches, grayish brown fine sandy loam

Woodstock soils

Surface layer:
0 to 1 inch, moderately decomposed organic material
1 to 3 inches, very dark brown sandy loam

Subsoil:
3 to 10 inches, dark brown sandy loam
10 to 16 inches, dark brown gravelly sandy loam

Bedrock:
16 inches, unweathered gneiss bedrock

Included in mapping are small areas of very deep, moderately well drained Schroon soils at the base of slopes and in slight depressions, and poorly drained Lyme soils along drainageways and in depressions. Also included are areas of Berkshire soils which have accumulated iron and organic matter in the subsoil, areas of soil which are less than 10 inches deep, and scattered areas of rock outcrop. Included areas are up to 10 acres and make up about 10 percent of the unit.

Soil Properties

Bice soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Soil Properties

Woodstock soils

Permeability: moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low
Soil reaction: strongly acid to slightly acid throughout
Surface runoff: slow or medium
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. Some areas are used to grow hay, or are used as pasture. Some areas are being used as sites for residential development.

Cropland

The soils in this map unit are poorly suited to cultivated crops because of the erosion potential and the shallow depth to bedrock in the Woodstock soils. On long, poorly vegetated slopes, these soils erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth. The variety of crops grown may also be limited by the relatively short growing season.

Pasture

This map unit is moderately suited to pasture. If overgrazing occurs, erosion can be a hazard because of slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

This map unit is very limited for camp areas, picnic areas, playgrounds, and golf fairways because of the depth to bedrock in the Woodstock part. This map unit is very limited for playgrounds because of slope. Grading and smoothing will be needed in most areas of this map unit. To avoid higher construction costs excluding areas of the shallow Woodstock soil should be considered when planning these facilities. Water erosion is a concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity is high for eastern white pine. This map unit is moderately suited to log landings because of slope. Some grading may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include white spruce and eastern white pine.

Dwellings with basements

This map unit is somewhat limited for dwellings because of slope and very limited because of depth to bedrock. Placing the building in the deeper part of this unit will save on site preparation costs. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is somewhat limited by slope and very limited by depth to bedrock in the Woodstock part. Conventional systems will likely function better in the deeper Bice areas of this unit. To increase the filtering capacity, absorption field tiles should be installed on lesser sloping areas and designed to follow the contour, where possible.

The capability subclass is 4e.

BPE—Bice-Woodstock complex, steep, stony

This map unit consists of very deep, well drained Bice soils and shallow, somewhat excessively drained Woodstock soils. They are on bedrock-controlled hills, ridges and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 20 to 100 acres and are oval or irregular shaped. Stones are 30 to 100 feet apart on the surface. Slope ranges from 15 to 35 percent, but are dominantly greater than 20 percent.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The map unit consists of about 50 percent Bice soils, 40 percent Woodstock soils, and 10 percent other soils.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Bice soils

Surface layer:
0 to 5 inches, dark yellowish brown loam

Subsoil:
5 to 18 inches, dark yellowish brown and strong brown fine sandy loam
18 to 25 inches, strong brown fine sandy loam
25 to 30 inches, dark yellowish brown fine sandy loam

Substratum:
30 to 72 inches, grayish brown fine sandy loam

Woodstock soil

Surface layer:
0 to 1 inch, moderately decomposed organic material
1 to 3 inches, very dark brown sandy loam

Subsoil:
3 to 10 inches, dark brown sandy loam
10 to 16 inches, dark brown gravelly sandy loam

Bedrock:
16 inches, unweathered gneiss bedrock

Included in mapping are small areas of very deep, moderately well drained Schroon soils at the base of slopes and in slight depressions, and poorly drained Lyme soils along drainageways and in depressions. Also included are areas of Berkshire soils that have accumulated iron and organic matter in the subsoil, areas of soil less than 10 inches deep, and scattered areas of rock outcrop. Included areas are up to 10 acres and make up about 10 percent of the unit.

Soil Properties

Bice soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: very severe

Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Soil Properties

Woodstock soil

Permeability: moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low
Soil reaction: strongly acid to slightly acid throughout
Surface runoff: rapid
Erosion hazard: very severe
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. Some areas are used as pasture.

Cropland

This map unit is not suited to cultivated crops. On long slopes and especially on areas bare of plant cover, these soils erode easily. Use of cover crops or sod forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is poorly suited to pasture. Slope is a high erosion hazard, especially in heavily grazed areas. Proper stocking rates and timely deferment of grazing will help reduce erosion and increase forage yields.

Recreation

Many recreational uses are very limited because of slope and also very limited in the Woodstock part because of the depth to bedrock. Extensive grading and smoothing will be needed in most areas of this map unit for playgrounds, campsites, picnic areas and golf fairways. Less sloping and deep included or nearby soils should be considered for these uses. Water erosion is a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity is high for eastern white pine. This map unit is poorly suited for log landings and natural road surfaces because of slope. This unit is not suited to mechanical planting because of steep slope. Establishing log landings at a nearly level or gently sloping area will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of steep slope. Roads should be routed around this unit, where possible. Water control structures may be installed to divert flowing water off and away from these passages. Trees to manage include white spruce and eastern white pine.

Dwellings with basements

This map unit is very limited for dwellings because of slope and very limited because of depth to bedrock in the Woodstock part. Intensive excavation, grading and smoothing will be necessary unless less sloping, deeper included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion.

Septic Tank Absorption Fields

This map unit is very limited by slope and very limited by depth to bedrock in the Woodstock part. Conventional systems will not function properly in most areas of this unit, resulting in a possible pollution hazard. To increase the filtering capacity, absorption field tiles should be installed on lesser sloping areas of included or nearby soils.

The capability subclass is 7e.

BtB—Broadalbin silt loam, 3 to 8 percent slopes

This very deep, gently sloping, moderately well drained soil formed in glacial till with a dense lower subsoil and substratum. It is on the top of hills in glacially modified uplands. Individual areas range mainly from 5 to 50 acres and are oval or rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 9 inches, dark grayish brown silt loam

Subsoil:
9 to 23 inches, yellowish brown silt loam
23 to 30 inches, mottled grayish brown fine sandy loam
30 to 43 inches, mottled dark yellowish brown gravelly fine sandy loam

Substratum:
43 to 74 inches, olive yellow and dark yellowish brown channery fine sandy loam
74 to 88 inches, mottled olive channery fine sandy loam

Included in mapping are small areas of somewhat poorly drained Mosherville soils and poorly drained or very poorly drained Sun soils in low areas and at the base of slopes. Also included are areas of Charlton and Sutton soils which have a friable substratum, and Manlius soils which are less than 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the surface and upper subsoil layers, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to slightly acid in the surface layer and subsoil, moderately acid to slightly alkaline in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 3 feet at some time during March through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during rainy periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to saturated zone and cemented pan. It is also very limited for playground use by slope. The addition of fill material or subsurface drainage will improve conditions for these uses. Some additional grading and smoothing will be needed for playground use.

Woodland

The potential productivity is moderate for sugar maple. This map unit is moderately suited to log landings and natural road surfaces because of slope, low strength of the upper soil profile, and seepage over the dense lower subsoil in the spring. Additional fill material and grading may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to a thin, saturated zone in the spring above the dense, lower subsoil. Placing tile drains around foundation footings and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the cemented pan or restricted permeability in the lower subsoil and substratum, and the depth to a thin, saturated zone during spring above the denser, lower subsoil. Conventional septic systems may not work properly, resulting in groundwater pollution. Alternative septic system designs that properly filter effluent above the lower subsoil should be considered.

The capability subclass is 2e.

BtC—Broadalbin silt loam, 8 to 15 percent slopes

This very deep, strongly sloping, moderately well drained soil formed in glacial till with a dense lower subsoil and substratum. It is on the sides of hills in glacially modified uplands. Individual areas range mainly from 5 to 50 acres and are rectangular or irregular shaped.

The typical sequence, depth and composition of the layers of this soil are as follows—

Surface layer:
0 to 9 inches, dark grayish brown silt loam

Subsoil:
9 to 23 inches, yellowish brown silt loam
23 to 30 inches, mottled grayish brown fine sandy loam
30 to 43 inches, mottled dark yellowish brown gravelly fine sandy loam

Substratum:
43 to 74 inches, olive yellow and dark yellowish brown channery fine sandy loam
74 to 88 inches, mottled olive channery fine sandy loam

Included in mapping are small areas of somewhat poorly drained Mosherville soils and poorly drained to very poorly drained Sun soils in low areas and at the base of slopes. Also included are areas of Charlton and Sutton soils, which have a friable substratum, and Manlius soils, which are less than 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the surface and upper subsoil layers, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to slightly acid in the surface layer and subsoil, moderately acid to slightly alkaline in the substratum
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: 1.5 to 3 feet at some time during March through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to saturated zone and slope. Playgrounds are very limited because of excessive slope. Campsites, picnic areas, playgrounds, and golf fairways are also somewhat limited because of depth to the cemented pan in the lower subsoil. The addition of fill material or subsurface drainage will improve conditions for these uses. Some additional grading and smoothing will be needed, particularly for playground use. Water erosion is a concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity is moderate for sugar maple. This map unit is moderately suited to log landings and natural road surfaces because of slope, low soil strength of the upper soil profile, and seepage over the dense lower subsoil in the spring. Additional fill material and grading may be necessary to efficiently stack and process logs. There is also a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to a thin, saturated zone in the spring, above the dense, lower subsoil. Tile drains around foundation footings and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the cemented pan or restricted permeability in the lower subsoil and substratum, and the depth to a thin, saturated zone during spring above the denser, lower subsoil. Conventional septic systems may not work properly, resulting in groundwater pollution. Alternative septic system designs that properly filter effluent above the lower subsoil should be considered.

The capability subclass is 3e.

BtD—Broadalbin silt loam, 15 to 25 percent slopes

This very deep, moderately steep, well drained to moderately well drained soil formed in glacial till with a dense lower subsoil and substratum. It is on the sides of hills in glacially modified uplands. Individual areas range mainly from 5 to 30 acres and are rectangular or irregular shaped.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, dark grayish brown silt loam

Subsoil:
9 to 23 inches, yellowish brown silt loam
23 to 30 inches, mottled grayish brown fine sandy loam
30 to 43 inches, mottled dark yellowish brown gravelly fine sandy loam

Substratum:
43 to 74 inches, olive yellow and dark yellowish brown channery fine sandy loam
74 to 88 inches, mottled olive channery fine sandy loam

Included in mapping are small areas of somewhat poorly drained Mosherville soils and poorly drained to very poorly drained Sun soils in low areas and at the base of slopes. Also included are areas of Charlton and Sutton soils that have a friable substratum, and Manlius soils that are less than 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the surface and upper subsoil layers, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to slightly acid in the surface layer and subsoil, moderately acid to slightly alkaline in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: 1.5 to 3 feet at some time during March through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used as pasture or are woodland. Some areas are used as cropland with stripcropping systems, or are being used as sites for residential development.

Cropland

The soils in this map unit are poorly suited to cultivated crops. On long, poorly vegetated slopes, these soils erode easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. If overgrazing occurs, erosion can be a hazard because of slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

Most recreational uses are very limited because of slope. Extensive grading and smoothing will be needed in most areas of this map unit for playgrounds, campsites, picnic areas and golf fairways. Water erosion is a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity is moderate for sugar maple. This map unit is poorly suited for log landings, natural road surfaces and mechanical planting because of slope. Establishing log landings at a nearly level or gently sloping areas will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings because of slope and the depth to a thin, saturated zone in the spring above the dense, lower subsoil. Intensive excavating, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop. Tile drains around foundation footings and diversion ditches may alleviate seepage.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of its moderately steep slope, the cemented pan or restricted permeability in the lower subsoil and substratum, and the depth to a thin, saturated zone during spring above the denser, lower subsoil. Conventional septic systems may not work properly, resulting in groundwater pollution. Less sloping areas and alternative septic system designs that properly filter effluent above the lower subsoil should be considered.

The capability subclass is 4e.

BvB—Broadalbin-Manlius-Nassau complex, undulating

This unit consists of very deep, moderately well drained Broadalbin soils, moderately deep, well drained Manlius soils, and shallow, somewhat excessively drained Nassau soils. Slopes range from 3 to 8 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly oval and range from 10 to 30 acres.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Broadalbin soils, 30 percent Manlius soils, 15 percent Nassau soils, and 5 percent other soils.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Broadalbin soils

Surface layer:
0 to 9 inches, dark grayish brown silt loam

Subsoil:
9 to 23 inches, yellowish brown silt loam
23 to 30 inches, mottled grayish brown fine sandy loam
30 to 43 inches, mottled dark yellowish brown gravelly fine sandy loam

Substratum:
43 to 74 inches, olive yellow and dark yellowish brown channery fine sandy loam
74 to 88 inches, mottled olive channery fine sandy loam

Manlius soils

Surface layer:
0 to 5 inches, dark brown channery silt loam

Subsoil:
5 to 18 inches, brown channery silt loam
18 to 21 inches, brown very channery silt loam

Substratum:
21 to 24 inches, yellowish brown extremely channery silt loam
24 inches, soft shale bedrock

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Included with this unit in mapping are small areas of very deep, somewhat poorly drained Mosherville soils in depressions and on concave footslopes, and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 5 percent of the map unit.

Soil Properties

Broadalbin soils

Permeability: moderate in the surface and upper subsoil layers, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to slightly acid in the surface layer and subsoil, moderately acid to slightly alkaline in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 3 feet at some time during March through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Manlius

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): low
Soil reaction: extremely acid to strongly acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: more than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Soil Properties

Nassau

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid or strongly acid throughout the soil
Surface runoff: medium

Erosion hazard: slight
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Many areas of this map unit are used for agriculture. Some areas are idle or wooded, orchards or are being used as residential building sites.

Cropland

The Broadalbin and Manlius parts of this unit are well suited to cultivated crops. These areas can be used to grow small grains, corn silage, hay, fruits and vegetables. Areas of Nassau soils tend to be droughty and channery. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

The Broadalbin and Manlius parts of this unit are very well suited to pasture. Areas of Nassau soils tend to be droughty with poorer sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet or very dry periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is very limited in the Nassau part for campsites, picnic areas, playgrounds and golf fairways because of the depth to bedrock. In the Manlius and Nassau parts of this unit, playgrounds are very limited by gravel content. Gravel-free fill material placed in recreation areas will improve conditions for these uses. A significant amount of quality fill material may be necessary to provide if the Manlius and Nassau parts of this unit are used for playgrounds.

Woodland

In this complex, the potential productivity is moderate for sugar maple. This map unit is only moderately suited to log landings and natural road surfaces because of slope, possible wetness, and relatively low strength in the Broadalbin part. Some grading may be necessary to efficiently stack and process logs. The Nassau part of this unit causes a severe limitation in road construction because of higher costs for excavating or blasting bedrock. Trees to manage include red pine, Norway spruce and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock in the Manlius and Nassau parts, and the depth to a thin, saturated zone above the dense lower subsoil of the Broadalbin soils. In the very deep areas of this unit, tile drains around foundation footings and sloping the land away from buildings may help to reduce seepage problems. Additional fill may be needed to landscape around basement walls in bedrock-controlled parts of this unit.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to cemented pan (or restricted permeability), and depth to a saturated zone during spring in the Broadalbin part, and depth to bedrock in the Manlius and Nassau parts. Selection of sites that have a deeper, more permeable soil, and in better-drained adjoining areas may reduce these limitations.

The capability subclass for Broadalbin and Manlius is 2e, and for Nassau is 3s.

BvC—Broadalbin-Manlius-Nassau complex, rolling

This unit consists of very deep, moderately well drained Broadalbin soils, moderately deep, well drained Manlius soils; and shallow, somewhat excessively drained Nassau soils. Slopes range from 8 to 15 percent. The surface topography is often irregular and slopes in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly oval and range from 10 to 30 acres.

The soils in this map unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Broadalbin soils, 30 percent Manlius soils, 15 percent Nassau soils, and 5 percent other soils.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Broadalbin soils

Surface layer:
0 to 9 inches, dark grayish brown silt loam

Subsoil:
9 to 23 inches, yellowish brown silt loam
23 to 30 inches, mottled grayish brown fine sandy loam
30 to 43 inches, mottled dark yellowish brown gravelly fine sandy loam

Substratum:
43 to 74 inches, olive yellow and dark yellowish brown channery fine sandy loam
74 to 88 inches, mottled olive channery fine sandy loam

Manlius soils

Surface layer:
0 to 5 inches, dark brown channery silt loam

Subsoil:
5 to 18 inches, brown channery silt loam
18 to 21 inches, brown very channery silt loam

Substratum:
21 to 24 inches, yellowish brown extremely channery silt loam
24 inches, soft shale bedrock

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Included in mapping are small areas of very deep, somewhat poorly drained Mosherville soils in depressions and on concave footslopes, and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 5 percent of the map unit.

Soil Properties

Broadalbin soils

Permeability: moderate in the surface and upper subsoil layers, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to slightly acid in the surface layer and subsoil, moderately acid to slightly alkaline in the substratum
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: 1.5 to 3 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Soil Properties

Manlius soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): low
Soil reaction: extremely acid to strongly acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: more than 6 feet at some time during March through May
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Soil Properties

Nassau soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid or strongly acid throughout the soil
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Many areas of this map unit are used for agriculture. Some areas are idle, wooded, orchards or are being used as residential building sites.

Cropland

The Broadalbin and Manlius parts of this unit are moderately suited to cultivated crops. Nassau soils tend to be droughty and channery. This unit can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

The Broadalbin and Manlius parts of this unit are well suited to pasture. Nassau soils tend to be droughty with poorer forage. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

Because of slope, this map unit is very limited for playground use. It is also very limited in the Nassau part for campsites, picnic areas, playgrounds and golf fairways because of depth to bedrock. In the Manlius and Nassau parts of this unit, playgrounds are very limited by high gravel content. Gravel-free fill material placed in areas of campsites and picnic areas will improve conditions for these uses. A significant amount of quality fill material may be necessary to provide if the Manlius and Nassau parts of this unit are used for playgrounds. Water erosion is a concern on heavily used paths and trails in the Broadalbin part of this unit. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity is moderate for sugar maple. This map unit is moderately suited to log landings and natural road surfaces because of slope, low soil strength of the upper soil profile, and seepage over the dense lower subsoil in the spring. Additional fill material and grading may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock in the Manlius and Nassau parts, and the depth to a thin, saturated zone above the dense lower subsoil of Broadalbin soils. In the very deep areas of this unit, tile drains around foundation footings and sloping the land away from buildings may help to reduce seepage problems. Additional fill may be needed to landscape around basement walls in bedrock-controlled parts of this unit.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to cemented pan (or restricted permeability) and depth to a saturated zone during spring in the Broadalbin part, and depth to bedrock in the Manlius and Nassau parts. Selecting sites that have a deeper, more permeable soil, and in better-drained adjoining areas may reduce these limitations.

The capability subclass for Broadalbin and Manlius is 3e, and for Nassau is 4s.

BvD—Broadalbin-Manlius-Nassau complex, hilly

This unit consists of very deep, well drained and moderately well drained Broadalbin soils; moderately deep, well drained Manlius soils; and shallow, somewhat excessively drained Nassau soils. Slopes range from 15 to 25 percent. The surface topography is often irregular and slopes in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly oval and range from 10 to 30 acres.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Broadalbin soils, 30 percent Manlius soils, 15 percent Nassau soils, and 5 percent other soils.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Broadalbin soils

Surface layer:
0 to 9 inches, dark grayish brown silt loam

Subsoil:
9 to 23 inches, yellowish brown silt loam
23 to 30 inches, mottled grayish brown fine sandy loam
30 to 43 inches, mottled dark yellowish brown gravelly fine sandy loam

Substratum:
43 to 74 inches, olive yellow and dark yellowish brown channery fine sandy loam
74 to 88 inches, mottled olive channery fine sandy loam

Manlius soils

Surface layer:
0 to 5 inches, dark brown channery silt loam

Subsoil:
5 to 18 inches, brown channery silt loam
18 to 21 inches, brown very channery silt loam

Substratum:
21 to 24 inches, yellowish brown extremely channery silt loam
24 inches, soft shale bedrock

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Included in mapping are small areas of very deep, somewhat poorly drained Mosherville soils in depressions and on concave footslopes, and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 5 percent of the map unit.

Soil Properties

Broadalbin soils

Permeability: moderate in the surface and upper subsoil layers, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to slightly acid in the surface layer and subsoil, moderately acid to slightly alkaline in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: 1.5 to 3 feet at some time during March through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Manlius

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): low
Soil reaction: extremely acid to strongly acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Soil Properties

Nassau soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid to strongly acid throughout the soil
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Some areas of this soil complex are used for agriculture. Many areas are idle, wooded, orchards or are being used as residential building sites.

Cropland

The soils of this map unit are poorly suited to cultivated crops. On long, poorly vegetated slopes, these soils erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

The Broadalbin and Manlius parts of this map unit are moderately suited to pasture. Areas of Nassau soils tend to be droughty with poorer forage. If overgrazing occurs, erosion can be a hazard because of slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

This map unit is very limited for campsites, picnic areas, playground and golf fairways because of slope. It is very limited in the Nassau part for campsites, picnic areas, playgrounds and golf fairways because of the depth to bedrock. In the Manlius and Nassau parts of this unit, playgrounds are very limited by high gravel content. Less sloping areas of Broadalbin or other very deep soils should be considered for these uses. Grading and smoothing of gravel-free fill material in areas of campsites and picnic areas will help improve conditions for these uses. A significant amount of quality fill material will be necessary to provide if this unit is used for playgrounds. Water erosion can be severe on heavily used paths and trails in the Broadalbin part of this unit. Water control structures can be installed to divert flowing water away from these passages, and paths routed along the slope contour, where possible, to alleviate erosion.

Woodland

In this complex, the potential productivity for sugar maple is moderate. This map unit is poorly suited for log landings, natural road surfaces, and mechanical planting because of slope. Establishing log landings at nearly level or gently sloping areas will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of slope and the depth to bedrock in the Manlius and Nassau parts, and the depth to a thin, saturated zone above the dense lower subsoil of Broadalbin soils. Less sloping, deeper areas should be considered for building sites. In the very deep areas of this unit, tile drains around foundation footings and sloping the land away from buildings may help to reduce seepage problems. Additional fill may be needed to landscape around basement walls in bedrock-controlled parts of this unit.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of slope, the depth to cemented pan (or restricted permeability), and depth to a saturated zone during spring in the Broadalbin part, and depth to bedrock in the Manlius and Nassau parts. Selecting sites that have a deeper, more permeable soil and in less sloping, better-drained adjoining areas may reduce these limitations.

The capability subclass for Broadalbin and Manlius is 4e, and for Nassau is 6e.

BxB—Burdett silt loam, 3 to 8 percent slopes

This very deep, gently sloping, somewhat poorly drained soil formed in a silty mantle and the underlying glacial till. It is on broad flats and at the base of hills on till plains. Individual areas range mainly from 5 to 15 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 7 inches, dark grayish brown silt loam

Subsoil:
7 to 11 inches, mottled light yellowish brown very fine sandy loam
11 to 18 inches, mottled dark grayish brown silty clay loam
18 to 33 inches, mottled olive brown channery clay loam

Substratum:
33 to 72 inches, mottled dark grayish brown channery silt loam

Included in mapping are small areas of moderately well drained Nunda soils on higher areas, and poorly drained Ilion soils in depressions and toe slope areas. Also included are areas of similar soils that have more clay in the subsoil, and Manlius soils, which are 20 to 40 inches deep to bedrock. Included areas are up to 5 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: moderate in the surface and upper subsoil, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): moderate to high
Soil reaction: strongly acid to neutral in the surface and subsoil, slightly acid to moderately alkaline in the substratum.
Surface runoff: medium
Erosion hazard: slight
Depth to water table: .5 to 1.5 feet at some time during December through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Many areas of this soil are used for agriculture. Some areas are in woodlots, or are covered with brush and reverting to woodland. This unit is considered prime farmland where adequately drained.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. Reducing tillage practices, using cover crops or sod-forming crops, and returning crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This soil is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is very limited for most recreational uses because of the depth to the saturated zone. This unit is very limited to playground use because of slope. Grading and smoothing will be needed in most areas if this unit is used for playgrounds. The addition of fill material and improved drainage will be needed to make these recreational uses functional. A higher, drier site should be considered for these uses.

Woodland

The potential productivity is moderately high for northern red oak. This map unit has a potentially high seedling mortality rate because of wetness. Species that are wetness tolerant should be selected for planting and management. This unit is moderately suited to log landings and natural road surfaces because of slope, wetness, and the relatively low soil strength of the upper soil profile. Additional fill material and grading may be necessary to efficiently stack and process logs. Trees to manage include Norway spruce, white spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings because of wetness or the depth to saturated zone. Selecting sites in better drained, adjoining areas may reduce this limitation. Tile drains around foundation footings and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in the lower subsoil, and the depth to saturated zone, especially in the spring. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 3w.

CcB—Charlton loam, 3 to 8 percent slopes

This very deep, gently sloping, well drained soil formed in glacial till. It is on the tops of hills in glacially modified uplands. Individual areas range mainly from 5 to 50 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 14 inches, dark brown loam

Subsoil:
14 to 27 inches, dark brown gravelly fine sandy loam
27 to 36 inches, dark yellowish brown sandy loam

Substratum:
36 to 72 inches, brown gravelly sandy loam

Included in mapping are small areas of moderately well drained Sutton soils in low areas and at the base of slopes. Also included are areas of Paxton soils and Woodbridge soils, which have compact substrata. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): high
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: slight
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This soil is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is very limited for playgrounds because of slope. Less sloping included or nearby soils will require less grading and smoothing.

Woodland

The potential productivity is moderate for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of slope and the relatively low soil strength within the upper soil profile. Some additional fill material and grading may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, white spruce, eastern hemlock, and European larch.

Dwellings with basements

This map unit is not limited if used as a site for dwellings.

Septic Tank Absorption Fields

This map unit is not limited for conventional septic systems. Included areas of Sutton soils are very limited by the depth to a saturated zone. Avoid placing the building in depressions or slightly concave areas of this unit.

The capability subclass is 2e.

CcC—Charlton loam, 8 to 15 percent slopes

This very deep, strongly sloping, well drained soil formed in glacial till. It is on the sides of hills in glacially modified uplands. Individual areas range mainly from 10 to 50 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 14 inches, dark brown loam

Subsoil:
14 to 27 inches, dark brown gravelly fine sandy loam
27 to 36 inches, dark yellowish brown sandy loam

Substratum:
36 to 72 inches, brown gravelly sandy loam

Included in mapping are small areas of moderately well drained Sutton soils in low areas and at the base of slopes. Also included are areas of Paxton and Woodbridge soils, which have compact substrata. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): high
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is somewhat limited if used for camp areas, picnic areas and golf fairways, and is very limited for playgrounds because of slope. Grading and smoothing will be needed in most areas of this map unit, especially for playgrounds.

Woodland

The potential productivity is moderate for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of slope and relatively low soil strength within the upper soil profile. Additional fill material and grading may be necessary to efficiently stack and process logs. There is also a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, white spruce, eastern hemlock, and European larch.

Dwellings with basements

This map unit is somewhat limited for dwellings because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control. Minimizing the removal of vegetative cover and revegetating soon after construction will reduce potential erosion.

Septic Tank Absorption Fields

This map unit is somewhat limited by slope. To increase the filtering capacity, absorption field tiles should be installed on lesser sloping areas or designed to follow the contour, where possible. Using drop boxes or other structures to ensure even distribution of effluent will increase the efficiency of the system. Included areas of Sutton soils are very limited because of the depth to a saturated zone. Avoid placing the building in depressions or slightly concave areas of this unit.

The capability subclass is 3e.

CcD—Charlton loam, 15 to 25 percent slopes

This very deep, moderately steep, well drained soil formed in glacial till. It is on the sides of hills in glacially modified uplands. Individual areas range mainly from 10 to 50 acres and are irregularly shaped.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 14 inches, dark brown loam

Subsoil:
14 to 27 inches, dark brown gravelly fine sandy loam
27 to 36 inches, dark yellowish brown sandy loam

Substratum:
36 to 72 inches, brown gravelly sandy loam

Included in mapping are small areas of moderately well drained Sutton soils at the base of slopes. Also included are areas of Paxton soils and Woodbridge soils, which have compact substrata. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): high
Soil reaction: very strongly acid or moderately acid throughout
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used as woodland. Some areas are used for orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops when practices are used to reduce the hazard of erosion. This soil can be used to grow small grains, corn silage and hay. Areas bare of plant cover erode easily. Cross slope tillage, use of cover crops or sod forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. If overgrazing occurs, erosion can be a hazard because of slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

Most recreational uses are very limited because of slope. Extensive grading and smoothing will be needed in most areas of this map unit for playgrounds, campsites, picnic areas, and golf fairways. Water erosion may become a management concern on heavily used paths and trails. Water control structures may be installed to divert flowing water away from these passages and paths and trails routed along the slope contour, where possible.

Woodland

The potential productivity for northern red oak is moderate. This map unit is poorly suited for log landings, natural road surfaces and mechanical planting because of slope. Establishing log landings at a nearly level or gently sloping area will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include eastern white pine, red pine, white spruce, eastern hemlock, and European larch.

Dwellings with basements

This map unit is very limited for dwellings because of slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited because of slope. To increase filtering capacity, absorption field tile should be installed on lesser sloping areas of included or nearby soils.

The capability subclass is 4e.

CeB—Chatfield-Hollis complex, undulating, rocky

This unit is made up of moderately deep, well drained Chatfield soils and shallow, well drained Hollis soils. It is on bedrock controlled upland till plains. The surface topography is often irregular and sloping in many directions because of the underlying bedrock.

Slopes range from 3 to 8 percent. Individual areas range mainly from 5 to 25 acres and are rectangular.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Chatfield soils, 30 percent Hollis soils, and 20 percent other soils including 1 percent rock outcrop.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Chatfield soils

Surface layer:
0 to 1 inch, slightly decomposed needles and leaves
1 to 2 inches, very dark brown moderately decomposed organic material
2 to 8 inches, dark yellowish brown sandy loam

Subsoil:
8 to 16 inches, strong brown silt loam
16 to 24 inches, brown loam

Bedrock:
24 inches, unweathered granite bedrock

Hollis soils

Surface layer:
0 to 1 inch, moderately decomposed organic material
1 to 3 inches, very dark brown fine sandy loam

Subsoil:
3 to 15 inches, strong brown fine sandy loam
15 to 19 inches, strong brown gravelly fine sandy loam

Bedrock:
19 inches, unweathered gneiss bedrock

Included with this unit in mapping are small areas of very deep Charlton soils, and areas of soil which are less than 10 inches deep to bedrock. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Chatfield soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low or moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: slight
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Soil Properties

Hollis soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit which were previously cleared have reverted to brush or forest. Some areas are used for agriculture.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay and some fruits and vegetables. However, the very low or low available water capacity may reduce yields significantly. Use of cover crops or sod-forming crops and return of crop residues to the soil help to improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can allow for regrowth after dry periods. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of the shallow depth to bedrock in the Hollis part. Gravel-free fill material placed in areas of campsites and picnic areas will improve conditions for these uses. A significant amount of quality fill material may be necessary in some areas of this unit to provide for safe playground use.

Woodland

The potential productivity is moderate for sugar maple. This map unit is moderately suited to log landings and natural road surfaces because of slope and relatively low soil strength in the Chatfield part. Some land leveling may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. The Hollis part of this unit causes a severe limitation in road construction because of the higher costs for excavating or blasting bedrock. Trees to manage include eastern white pine and Norway spruce.

Dwellings with basements

This map unit is somewhat limited for dwellings because of slope and very limited because of depth to bedrock. Placing the building in the deeper included areas of Charlton soils will save onsite preparation costs. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is very limited by depth to bedrock. Conventional systems may fail and will likely function better in the deeper, included areas of Charlton soils. To increase filtering capacity, alternative systems should be installed.

The capability subclass is 3s.

CeC—Chatfield-Hollis complex, rolling, rocky

This unit is made up of moderately deep, well drained Chatfield soils and shallow, well drained Hollis soils. It is on bedrock controlled upland till plains. The surface topography is often irregular and sloping in many directions because of the underlying bedrock. Slopes range from 8 to 15 percent. Individual areas range mainly from 5 to 25 acres and are rectangular.

The soils in this map unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Chatfield soils, 30 percent Hollis soils, and 20 percent other soils including 1 percent rock outcrop.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Chatfield soils

Surface layer:
0 to 1 inch, slightly decomposed needles and leaves
1 to 2 inches, very dark brown moderately decomposed organic material
2 to 8 inches, dark yellowish brown sandy loam

Subsoil:
8 to 16 inches, strong brown silt loam
16 to 24 inches, brown loam

Bedrock:
24 inches, unweathered granite bedrock

Hollis soils

Surface layer:
0 to 1 inch, moderately decomposed organic material
1 to 3 inches, very dark brown fine sandy loam

Subsoil:
3 to 15 inches, strong brown fine sandy loam
15 to 19 inches, strong brown gravelly fine sandy loam

Bedrock:
19 inches, unweathered gneiss bedrock

Included with this unit in mapping are small areas of very deep Charlton soils, and areas of soil which are less than 10 inches deep to bedrock. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Chatfield soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low or moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Soil Properties

Hollis soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit which were previously cleared have reverted to brush or forest. Some areas are used for agriculture.

Cropland

The soils in this map unit are poorly suited to cultivated crops because of the erosion hazard and intermingled areas of rock outcrop, which interfere with tillage. On long, poorly vegetated slopes, these soils erode easily. Cross slope tillage around rock outcrops, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote soil tilth.

Pasture

This map unit is moderately suited to pasture. Improvement of pasture is difficult because of slope and areas of rock outcrop. Proper stocking rates and timely deferment of grazing to allow for the regrowth of forage, will help increase forage yields.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of depth to bedrock in areas of Hollis soils. It is also very limited for playground use because of rolling slope. In addition to leveling the ground surface, application of gravel-free fill material placed in areas of campsites and picnic areas will improve conditions for these uses. A significant amount of quality fill material may be necessary to provide if this unit is used for playgrounds.

Woodland

The potential productivity is moderate for sugar maple. This map unit is moderately suited to log landings and natural road surfaces because of the slope and the relatively low soil strength in the Chatfield part. Some grading may be necessary to efficiently stack and process logs. There is a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. The Hollis part of this unit causes a severe limitation in road construction because of higher costs for excavating or blasting bedrock. Trees to manage include eastern white pine and Norway spruce.

Dwellings with basements

This map unit is somewhat limited for dwellings because of slope and very limited because of depth to bedrock. Placing the building in the deeper included areas of Charlton soils will save onsite preparation costs. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is somewhat limited by slope and very limited by depth to bedrock. Conventional systems may fail and will likely function better in the deeper, included areas of Charlton soils. To increase filtering capacity, alternative systems should be installed.

The capability subclass is 4e.

CfD—Chatfield-Hollis complex, hilly, very rocky

This map unit is made up of moderately deep, well drained Chatfield soils and shallow, well drained Hollis soils. It is on bedrock controlled upland till plains. The surface topography is often irregular and sloping in many directions because of the underlying bedrock. Slope ranges from 15 to 25 percent. Individual areas range mainly from 5 to 20 acres and are rectangular.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Chatfield soils, 30 percent Hollis soils, 15 percent other soils and 5 percent rock outcrop.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Chatfield soils

Surface layer:
0 to 1 inch, slightly decomposed needles and leaves
1 to 2 inches, very dark brown moderately decomposed organic material
2 to 8 inches, dark yellowish brown sandy loam

Subsoil:
8 to 16 inches, strong brown silt loam
16 to 24 inches, brown loam

Bedrock:
24 inches, unweathered granite bedrock

Hollis soils

Surface layer:
0 to 1 inch, moderately decomposed organic material
1 to 3 inches, very dark brown fine sandy loam

Subsoil:
3 to 15 inches, strong brown fine sandy loam
15 to 19 inches, strong brown gravelly fine sandy loam

Bedrock:
19 inches, unweathered gneiss bedrock

Included with this unit in mapping are small areas of very deep Charlton soils, and areas that are less than 10 inches deep to bedrock. Included areas are up to 5 acres and make up about 15 percent of the unit.

Soil Properties

Chatfield soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low or moderate
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Hollis soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Some areas of this map unit which were previously cleared have reverted to brush or forest. Most areas are forested.

Cropland

The soils in this map unit are not suited to cultivated crops because of slope, erosion, low available water capacity, and intermingled areas of rock outcrop. Using sod-forming crops and returning crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is poorly suited to pasture. Proper stocking rates and timely deferment of grazing, to allow for regrowth of forage, will help increase forage yields and reduce the hazard of erosion. Improvement of pasture is difficult because of slope and areas of rock outcrop.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of depth to bedrock and hilly slopes. Gravel-free fill material placed in areas of campsites and picnic areas will improve conditions for these uses. Less sloping nearby areas should be considered. Extensive grading and smoothing will be needed in most areas of this map unit. Water erosion is a severe management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity is moderate for sugar maple. This map unit is poorly suited for log landings, natural road surfaces, and mechanical planting because of its hilly slope. Establishing log landings at less sloping included areas of Charlton soils may provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures may be installed to divert flowing water off and away from these passages. The Hollis part of this unit causes a severe limitation in road construction because of higher costs for excavating or blasting bedrock. Roads should be designed to follow the slope contour, where possible. Trees to manage include eastern white pine and Norway spruce.

Dwellings with basements

This map unit is very limited for dwellings because of its hilly slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units or included areas of Charlton soils may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited by slope and depth to bedrock. Conventional systems will probably fail and may function better in the deeper, included areas of Charlton soils. The selection of an alternate site or septic system design is recommended.

The capability subclass is 6e.

Cg—Cheektowaga mucky very fine sandy loam

This very deep, nearly level, very poorly drained soil formed in sandy deposits over clayey sediments. It is in depressions on old glacial lake plains. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 10 acres and are oval.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 12 inches, very dark grayish brown, mucky very fine sandy loam

Subsurface layer:
12 to 15 inches, mottled, light brownish gray loamy sand

Subsoil:
15 to 21 inches, mottled, grayish brown loamy fine sand

Substratum:
21 to 38 inches, mottled, gray clay
38 to 72 inches, mottled, yellowish brown silty clay

Included in mapping are small areas of somewhat poorly drained Cosad soil and loamy over clayey Shaker soil. Also included are areas of silty Raynham soil. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: rapid in the upper sandy layers; slow or very slow in the clayey substratum
Available water capacity (average for 40-inch profile): high
Soil reaction: moderately acid to neutral in the surface and subsoil, but ranges to moderately alkaline in the lower subsoil just above the clayey material; and neutral to moderately alkaline in the substratum
Surface runoff: very slow or ponded
Erosion hazard: none
Depth to water table: 0.5 foot above the surface to a depth of 0.5 foot during November through June
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are wooded. A few small areas are used as pasture.

Cropland

This map unit is not suited to cultivated crops. Unless drained, the seasonal high water table interferes with cultivation during much of the year. When outlets are available, surface or subsurface drainage systems may allow some areas to be cultivated. However, many areas of this map unit are considered to be valuable wetland habitat.

Pasture

This map unit is poorly suited to pasture, except in the driest years. Valuable wetland species can be displaced and palatable forage species are few. Proper stocking rates and timely deferment of grazing in the spring and after rainy periods will reduce compaction and the loss of seeding.

Recreation

This map unit is very limited for most recreational uses because of ponding and depth to the saturated zone. A higher, drier site should be considered for these uses. The addition of fill material and drainage will be needed in most areas to make these uses functional. However, this area may be an important wetland habitat.

Woodland

The potential productivity for northern white cedar is moderately high. This map unit is poorly suited for log landings and natural road surfaces because of ponding and depth to the saturated zone. This area may be an important wetland habitat. Higher, more-convex positions should be considered. Improved drainage and fill will be needed to operate log landings in most areas of this unit. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include northern whitecedar.

Dwellings with basements

This map unit is very limited for dwellings because of ponding and wetness. Selecting sites in better drained, adjoining areas should be considered.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability, ponding, and the depth to saturated zone. A nearby well drained site should be considered for this use.

The capability subclass is 5w.

ChB—Chenango silt loam, loamy substratum, undulating

This very deep, well drained soil formed in water sorted sand and gravel on outwash plains, kames, eskers and alluvial fans. Slopes range from 3 to 8 percent, and is complex. Areas range from 5 to 50 acres and are oval or irregular shaped.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 6 inches, dark brown silt loam

Subsoil:
6 to 14 inches, dark yellowish brown and brown gravelly loam
14 to 20 inches, dark yellowish brown very gravelly fine sandy loam
20 to 30 inches, dark yellowish brown very gravelly silt loam

Substratum:
30 to 72 inches, dark brown very channery fine sandy loam

Included in mapping are small areas of moderately well drained, sandy Deerfield soils in depressions, and sandy-gravelly Hoosic soils on sloping areas. Included areas are up to 5 acres and make up about 15 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid in the surface and subsoil, strongly acid to neutral in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: deeper than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this map unit may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction and destruction of sod cover.

Recreation

This map unit is very limited for playgrounds because of slope. Some grading and smoothing may be required. Gravel-free topsoil applied over this map unit in critical areas will improve the surface for safe playground use.

Woodland

The potential productivity is moderately high for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of slope and relatively low soil strength within the upper soil profile. Additional fill material and grading may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is not limited for use as a site for dwellings with basements.

Septic Tank Absorption Fields

This map unit is not limited for this use.

The capability subclass is 2e.

ChC—Chenango silt loam, loamy substratum, rolling

This very deep, well drained soil formed in water sorted sand and gravel on kames, eskers and alluvial fans. Slopes range from 8 to 15 percent, and is complex. Areas range from 10 to 100 acres and are oval or irregular shaped.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 6 inches, dark brown silt loam

Subsoil:
6 to 14 inches, dark yellowish brown and brown gravelly loam

14 to 20 inches, dark yellowish brown very gravelly fine sandy loam
20 to 30 inches, dark yellowish brown very gravelly silt loam

Substratum:
30 to 72 inches, dark brown very channery fine sandy loam

Included in mapping are small areas of moderately well drained, sandy Deerfield soils in depressions, and sandy-gravelly Hoosic soils on sloping areas. Included areas are up to 5 acres and make up about 15 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid in the surface and subsoil, strongly acid to neutral in the substratum
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: deeper than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this map unit erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of slope. Grading and smoothing for playground sites will be needed in most areas of this map unit. Gravel-free topsoil applied over this map unit in critical areas will improve the surface for safe playground use.

Woodland

The potential productivity is moderately high for northern red oak. This map unit is moderately suited for log landings and natural road surfaces because of slope and relatively low strength in the upper soil profile. However, the hazard of erosion on roads and trails is severe because of slope. Water control structures can be installed to divert flowing water away from these passages, and roads placed along the slope contour where possible. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is somewhat limited for dwellings because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is somewhat limited by slope. To increase filtering capacity, absorption field tiles should be installed on lesser sloping areas or designed to follow the contour, where possible.

The capability subclass is 3e.

ClA—Claverack loamy fine sand, 0 to 3 percent slopes

This very deep, nearly level, moderately well drained soil formed in sandy over clayey deposits on old lake plains. Individual areas range mainly from 5 to 20 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, very dark grayish brown loamy fine sand

Subsoil:
8 to 13 inches, mottled light olive brown fine sand
13 to 21 inches, mottled brown fine sand
21 to 27 inches, dark grayish brown sand

Substratum:
27 to 31 inches, mottled grayish brown silt loam
31 to 72 inches, mottled brown silty clay

Included in mapping are small areas of somewhat poorly drained Cosad soils, sandy Oakville or

Deerfield soils and clayey Hudson, Rhinebeck or Madalin soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: rapid in the sandy upper part, and mainly slow or very slow below
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to neutral in the solum, neutral to moderately alkaline in the substratum
Surface runoff: slow
Erosion hazard: none
Depth to water table: 1.5 to 2 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots or orchards.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. The seasonal high water table can cause soft ground conditions under heavy farm equipment. Subsurface drainage can improve soil conditions for planting. The use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing in the spring and during other wet periods will protect soil tilth and maintain sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the sandy surface and the depth to the saturated zone. Because of the high sand content, this unit is droughty when used for golf fairways. The addition of loamy fill material and good quality topsoil as well as subsurface drainage will improve conditions for these uses.

Woodland

The potential productivity for sugar maple is moderate. This map unit is moderately suited for log landings and natural road surfaces because of wetness. Improved drainage or fill material may be needed in some areas of this unit to support heavy machinery. Trees to manage include Norway spruce and white spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around footings and sloping the land away from buildings will help to reduce wetness.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil, depth to the saturated zone, and its restricted permeability caused by an abrupt change in soil texture between layers. This condition may result in pollution of groundwater. Alternate disposal systems should be considered to insure adequate treatment of effluent, and to remove excess water from the site.

The capability subclass is 2w.

ClB—Claverack loamy fine sand, 3 to 8 percent slopes

This very deep, gently sloping, moderately well drained soil formed in sandy over clayey deposits on old lake plains. Individual areas range mainly from 5 to 20 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, very dark grayish brown loamy fine sand

Subsoil:
8 to 13 inches, mottled light olive brown fine sand
13 to 21 inches, mottled brown fine sand
21 to 27 inches, dark grayish brown sand

Substratum:
27 to 31 inches, mottled grayish brown silt loam
31 to 72 inches, mottled brown silty clay

Included in mapping are small areas of somewhat poorly drained Cosad soils, sandy Oakville or Deerfield soils, and clayey Hudson, Rhinebeck or Madalin soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: rapid in the sandy upper part, and mainly slow or very slow below
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to neutral in the solum, neutral to moderately alkaline in the substratum

Surface runoff: slow
Erosion hazard: none
Depth to water table: 1.5 to 2 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots or orchards.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. The seasonal high water table can cause soft ground conditions under heavy farm equipment. Subsurface drainage can improve soil conditions for planting. The use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing in the spring and during other wet periods will protect soil tilth and maintain sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the sandy surface and the depth to the saturated zone. Because of the high sand content, this unit is droughty when used for golf fairways. This unit is also very limited for playground use because of slope. The addition of loamy fill material and good quality topsoil, as well as subsurface drainage will improve conditions for these uses. Grading and smoothing will be needed for developing this unit for playgrounds.

Woodland

The potential productivity is moderate for sugar maple. This map unit is moderately suited for log landings and natural road surfaces because of wetness and slope. Improved drainage, leveling, or fill material may be needed in some areas of this unit. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include Norway spruce and white spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around footings and sloping the land away from buildings will help to reduce wetness.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil, depth to saturated zone, and its restricted permeability caused by an abrupt change in soil texture between layers. This condition may result in pollution of groundwater. Alternate disposal systems should be considered to insure adequate treatment of effluent, and to remove excess water from the site.

The capability subclass is 2w.

COC—Colton gravelly sandy loam, strongly sloping

This very deep, excessively drained soil formed in water sorted sand and gravel. It is on outwash plains and eskers in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 60 acres and are triangular or serpentine. Slopes range from 3 to 15 percent.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 1 inch, moderately decomposed organic material (leaf litter)
1 to 3 inches, dark brown gravelly sandy loam

Subsurface layer:
3 to 4 inches, pinkish gray gravelly loamy sand

Subsoil:
4 to 7 inches, very dark brown gravelly loamy sand
7 to 13 inches, dark brown gravelly loamy sand
13 to 41 inches, brown, strong brown and dark yellowish brown very gravelly sand

Substratum:
41 to 72 inches, brown stratified sand and gravel

Included in mapping are small areas of sandy Allagash soils. Included areas are up to 10 acres and make up about 10 percent of the unit.

Soil Properties

Permeability: rapid or very rapid in the solum; very rapid in the substratum
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: extremely acid to moderately acid in the solum, very strongly acid to slightly acid in substratum

Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. Some areas are being used as sites for residential development. This map unit is a probable source of sand and gravel.

Cropland

The soils in this map unit are poorly suited to cultivated crops. On long, poorly vegetated slopes, these soils erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion, droughtiness, and promote good soil tilth. The variety of crops grown may also be limited by the relatively short growing season.

Pasture

This map unit is moderately suited to pasture. If overgrazing occurs, erosion can be a hazard because of slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

This map unit is very limited for use as playgrounds because of slope. This unit is very limited for use as golf fairways because it tends to be droughty. In some areas of this unit, the gravel content may be somewhat limiting. Grading and smoothing with gravel-free, loamy topsoil for campsites, picnic areas, playground and golf fairway sites may be needed in most areas of this map unit. Water erosion is a concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity is moderate for sugar maple. This map unit is moderately suited to log landings and natural road surfaces because of slope and high sand content. The addition of slightly loamier fill material and land leveling may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. There is a moderate potential for seedling mortality because of its soil reaction. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is somewhat limited for dwellings with basements because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering by the soil may result in pollution of the groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 4e.

COE—Colton gravelly sandy loam, steep

This very deep, excessively drained soil formed in water sorted sand and gravel. It is on kettles, kames and eskers in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 60 acres and are irregular or serpentine. Slope ranges from 15 to 35 percent, but are dominantly greater than 20 percent.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 1 inch, moderately decomposed organic material (leaf litter)
1 to 3 inches, dark brown gravelly sandy loam

Subsurface layer:
3 to 4 inches, pinkish gray gravelly loamy sand

Subsoil:
4 to 7 inches, very dark brown gravelly loamy sand
7 to 13 inches, dark brown gravelly loamy sand
13 to 41 inches, brown, strong brown and dark yellowish brown very gravelly sand

Substratum:
41 to 72 inches, brown stratified sand and gravel

Included in mapping are small areas of sandy Allagash soils. Included areas are up to 10 acres and make up about 10 percent of the unit.

Soil Properties

Permeability: rapid to very rapid in the solum; very rapid in the substratum
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: extremely acid to moderately acid in the solum, very strongly acid to slightly acid in the substratum

Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. This map unit is a probable source of sand and gravel.

Cropland

The soils in this map unit are not suited to cultivated crops. On long slopes and especially on areas bare of plant cover, these soils erode easily. Use of cover crops or sod forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is poorly suited to pasture. The sloping ground results in a high erosion hazard, especially in heavily grazed areas. Proper stocking rates and timely deferment of grazing will help reduce erosion and increase forage yields.

Recreation

Most recreational uses are very limited because of steep slope. Extensive grading and smoothing will be needed in most areas of this map unit for playgrounds, campsites, picnic areas and golf fairways. Water erosion is a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity is moderate for sugar maple. This map unit is poorly suited for log landings and natural road surfaces because of its steep slope. This unit is not suited for mechanical planting because of slope. Establishing log landings at a nearly level or gently sloping area will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and its steep slope. Inadequate filtering by this soil may result in pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability and gentle slope in nearby areas may reduce this limitation.

The capability subclass is 7e.

Cs—Cosad fine sandy loam

This very deep, nearly level, somewhat poorly drained soil formed in sandy deposits over clayey lacustrine deposits. Slopes range from 0 to 3 percent. It is in slight depressions on lake plains. Individual areas range mainly from 5 to 15 acres and are oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, mottled very dark grayish brown fine sandy loam

Subsoil:
8 to 20 inches, mottled yellowish brown loamy fine sand
20 to 27 inches, mottled dark yellowish brown loamy fine sand

Substratum:
27 to 72 inches, dark yellowish brown clay

Included in mapping are small areas of moderately well drained Claverack soils, poorly drained or very poorly drained Cheektowaga soils, sandy Oakville or Deerfield soils and clayey Hudson, Rhinebeck or Madalin soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: rapid in the sandy solum, slow to very slow below the solum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to slightly acid in the surface and upper subsoil, moderately acid to neutral in the lower subsoil, and neutral to moderately alkaline in the clayey substratum

Surface runoff: very slow
Erosion hazard: slight
Depth to water table: .5 to 1.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture or are wooded. It is considered prime farmland when adequately drained.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is very limited for most recreational uses because of the depth to the saturated zone. The addition of fill material and improved drainage will be needed in most areas of this map unit to make these uses functional. A higher, drier site should be considered for these uses.

Woodland

The potential productivity for red maple is moderate. This map unit is poorly suited for log landings and natural road surfaces because of wetness. Improved drainage and the addition of fill material may be needed in most areas of this unit to support heavy machines. Higher, more-convex positions should be considered. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include Norway spruce and white spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas should be considered. Tile drains around foundation footings and protective coatings on basement walls may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil, depth to saturated zone, and its restricted permeability caused by an abrupt change in soil texture between layers. This condition may result in the pollution of groundwater. A better drained nearby area should be considered for this use. Alternative septic system designs should be considered to insure adequate treatment of effluent, and to remove excess water from the site.

The capability subclass is 3w.

DeA—Deerfield loamy fine sand, nearly level

This very deep, moderately well drained soil formed in water sorted sand. It is on glacial outwash plains and terraces. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 30 acres and are oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 10 inches, very dark grayish brown loamy fine sand

Subsoil:
10 to 26 inches, mottled, dark yellowish brown loamy fine sand

Substratum:
26 to 44 inches, mottled, yellowish brown fine sand
44 to 72 inches, brown fine sand

Included with this soil in mapping are small areas of well drained Oakville soils and somewhat poorly drained Wareham soils. Also included are areas of sandy over clayey Claverack soils. Included areas are up to 5 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: moderately rapid or rapid in the surface, rapid in the subsoil, and very rapid in the substratum
Available water capacity (average for 40-inch profile): very low or low

Soil reaction: very strongly acid to slightly acid throughout
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 1.5 to 3 feet at some time during December through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection may be limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. In the summer months, this map unit may be subject to droughtiness. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to saturated zone. For golf fairways, this unit is also somewhat limited by droughtiness. The addition of loamy fill material and adequate drainage will greatly improve conditions for these uses.

Woodland

The potential productivity is high for eastern white pine. This map unit is not limiting for most woodland management activities. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings and protective coatings on basement walls may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and depth to saturated zone (mainly in the spring). Inadequate filtering by the soil above the saturated zone may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3w.

DeB—Deerfield loamy fine sand, undulating

This very deep, moderately well drained soil formed in water sorted sand. It is on glacial outwash plains and terraces. Slope ranges from 3 to 8 percent, and is complex. Individual areas range mainly from 10 to 30 acres and are oval or rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 10 inches, very dark grayish brown loamy fine sand

Subsoil:
10 to 26 inches, mottled, dark yellowish brown loamy fine sand

Substratum:
26 to 44 inches, mottled, yellowish brown fine sand
44 to 72 inches, brown fine sand

Included with this soil in mapping are small areas of well drained Oakville soils and somewhat poorly drained Wareham soils. Also included are areas of sandy over clayey Claverack soils. Included areas are up to 5 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: moderately rapid or rapid in the surface, rapid in the subsoil, and very rapid in the substratum
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: very strongly acid to slightly acid throughout
Surface runoff: slow
Erosion hazard: slight

Depth to water table: 1.5 to 3 feet at some time during December through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection may be limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. In the summer months, this soil may be subject to droughtiness. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to saturated zone. This unit is very limited for playground use because of slope. The addition of fill material or adequate drainage will greatly improve conditions for these uses. Some grading and smoothing may be needed, particularly for playground use.

Woodland

The potential productivity is high for eastern white pine. This map unit is moderately suited to log landings and natural road surfaces because of slope. Some land leveling may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings and protective coatings on basement walls may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and depth to saturated zone (mainly in the spring). Inadequate filtering by the soil above the saturated zone may result in pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3w.

ElB—Elmridge very fine sandy loam, 3 to 8 percent slopes

This very deep, gently sloping, moderately well drained soil formed in loamy outwash overlying clayey sediments. It is on the glacial lake plain and terraces. Individual areas range mainly from 10 to 25 acres and are rectangular or oblong.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, brown very fine sandy loam

Subsoil:
8 to 16 inches, yellowish brown very fine sandy loam
16 to 18 inches, light olive brown very fine sandy loam
18 to 39 inches, mottled dark yellowish brown and light yellowish brown silty clay

Substratum:
39 to 47 inches, mottled pale olive clay
47 to 72 inches, brown clay

Included with this soil in mapping are small areas with slopes less than 3 percent, and areas of poorly drained Shaker soils. Also included are areas of similar but well drained soils and sandy Oakville or moderately well drained Deerfield soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately rapid in the solum, slow or very slow in the substratum

Available water capacity (average for 40-inch profile): high
Soil reaction: very strongly acid to neutral in the surface, strongly acid to slightly acid in the subsoil, and moderately acid to slightly alkaline in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 1.5 to 2.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is very limited because of restricted permeability in the lower subsoil or substratum. This unit is also very limited for playground use because of slope. The addition of fill material, improved drainage, and land leveling may be needed in many areas of this map unit to improve surface conditions.

Woodland

The potential productivity is moderately high for northern red oak. This map unit is moderately suited for log landings and natural road surfaces because of wetness, slope, and relatively low soil strength in the upper profile. Improved drainage, leveling or additional fill material may be needed in some areas of this unit. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include eastern white pine and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in the lower subsoil or substratum, and the depth to saturated zone (especially in the spring). Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 2e.

FaB—Farmington silt loam, 3 to 8 percent slopes, rocky

This shallow, gently sloping, well drained soil formed in glacial till. It is on bedrock controlled till plains, with about 1 percent rock outcrop. Individual areas range mainly from 5 to 20 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, dark brown silt loam

Subsoil:
9 to 15 inches, dark yellowish brown silt loam

Bedrock:
15 inches, fractured gray limestone

Included with this soil in mapping are small areas of moderately deep Galway soil and soils similar to Farmington which are less than 10 inches deep to bedrock. Included areas are up to 5 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: moderate throughout
Available water capacity (average for 40-inch profile): very low
Soil reaction: strongly acid to neutral in the surface layer, moderately acid to slightly alkaline in the subsoil
Surface runoff: medium

Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit which were previously cleared have reverted to brush or forest. Some areas are used for agriculture.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay and some fruits and vegetables. However, the very low available water capacity may reduce yields significantly. Use of cover crops or sod-forming crops, and return of crop residues to the soil help to improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. Rock outcrops can be obstacles to maintaining good forage production. Proper stocking rates and timely deferment of grazing can allow for regrowth after dry periods. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds and golf fairways because of the depth to bedrock. Gravel-free fill material placed in areas of campsites and picnic areas will improve conditions for these uses. A significant amount of quality fill material may be necessary to provide playground and golf fairway use.

Woodland

The potential productivity is moderate for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of slope and relatively low soil strength within the upper soil profile. This unit is very limited for road construction because of the shallow depth to bedrock. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of depth to bedrock. Selecting alternate sites is recommended. Placing the building in deeper nearby soils may save onsite preparation costs.

Septic Tank Absorption Fields

This map unit is very limited by depth to bedrock. Selecting alternate sites is recommended. Specially designed systems should be considered because conventional systems will likely fail to function properly.

The capability subclass is 3s.

FcC—Farmington silt loam, 3 to 15 percent slopes, very rocky

This shallow, gently sloping, well drained soil formed in glacial till. It is on bedrock controlled till plains, with about 5 percent rock outcrop. Individual areas range mainly from 5 to 20 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, dark brown silt loam

Subsoil:
9 to 15 inches, dark yellowish brown silt loam

Bedrock:
15 inches, fractured gray limestone

Included in mapping are small areas of moderately deep Galway soil, soils similar to Farmington which are less than 10 inches deep to bedrock, and areas of Farmington soils which have steeper slopes. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate throughout
Available water capacity (average for 40-inch profile): very low
Soil reaction: strongly acid to neutral in the surface layer, moderately acid to slightly alkaline in the subsoil
Surface runoff: medium or rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit which were previously cleared have reverted to brush or forest. Some areas are used for agriculture.

Cropland

This map unit is not suited to cultivated crops. Areas of rock outcrop interfere with tillage operations. The very low available water capacity limits production in many years. On long, poorly vegetated slopes, these soils may erode easily. The use of cover crops or sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

Most areas of this map unit are poorly suited to pasture because of droughtiness and rock outcrops. Rotational grazing will help to improve forage conditions. Improvement of pasture is difficult because of slope and areas of rock outcrop.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds and golf fairways because of the depth to bedrock, and is very limited for playgrounds because of slope. Grading and smoothing, especially for playground sites, will be needed in most areas of this map unit. Gravel-free fill material placed in areas of campsites and picnic areas will improve conditions for these uses. A significant amount of quality fill material may be necessary to provide if this unit is used for playgrounds and golf fairways.

Woodland

The potential productivity is moderate for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of slope and relatively low soil strength within the upper soil profile. This unit is very limited for road construction because of the shallow depth to bedrock . Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is somewhat limited for dwellings with basements because of slope and very limited because of depth to bedrock. Selecting alternate sites is recommended. Placing the building in the deeper nearby soils may save on site preparation costs. Some fill material, as well as grading and smoothing, will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is somewhat limited by slope and very limited by depth to bedrock. Selection of alternate sites is recommended. Specially designed systems should be considered because conventional systems will likely fail to function properly.

The capability subclass is 6s.

Fl—Fluvaquents, frequently flooded

These deep to very deep, nearly level, poorly drained soils formed in recent alluvial deposits on flood plains. The unit is commonly called alluvial land. Fluvaquents are low-lying and flood frequently during late winter and spring. They are subject to extreme change during flood periods. Many areas are cut by old drainage channels. Large areas consist of stratified gravelly deposits that may have a thin surface of silty alluvium. Slopes range from 0 to 3 percent.

Typically, Fluvaquents have a grayish or brownish surface layer that ranges from gravelly loamy sand to silt loam. Thickness of the surface layer is from 6 to 15 inches. The substratum is mottled brownish or grayish, and has textures ranging from very gravelly sandy loam to silt loam.

Included with these soils in mapping are small areas of poorly drained Limerick and Madalin, or somewhat poorly drained Raynham soils, and areas of Palms or Medisaprists organic soils in depressed parts of the floodplain. Gravel and sandbars and bedrock outcroppings are in a few places. Included soils occupy areas up to 5 acres and make up about 40 percent of the unit.

Bedrock is usually at a depth greater than 40 inches. Permeability, available water capacity, organic matter content and soil reaction vary with the composition of the deposited material.

Most areas of this map unit are wooded. Frequent flooding and wetness make them unsuited for use as cropland or pasture.

Cropland

This map unit is not suited to cultivated crops. Unless the soil is drained, the seasonal high water table interferes with cultivation during much of the year. When outlets are available, surface or subsurface drainage systems may allow some areas to be cultivated. However, many areas of this map unit are considered to be valuable wetland habitat.

Pasture

This map unit is poorly suited to pasture, except in the driest years. Valuable wetland species can be displaced and palatable forage species are few. Proper stocking rates and timely deferment of grazing in the spring and after rainy periods will reduce compaction and the loss of seeding.

Recreation

This map unit is very limited for most recreational uses because of the depth to saturated zone and ponding during part of the year. Campsites, playgrounds and golf fairways are also very limited because of frequent and sometimes rapid flooding. A higher, drier site should be considered for these uses. Additional fill material and improved drainage are commonly practiced, but are not recommended within this map unit because of the important hydrologic and biologic functions of flood plains.

Woodland

The potential productivity of this map unit for wood production is low. Brush and low-grade timber such as cottonwood, red maple, and poplar will grow in many places and make suitable wildlife habitat. This map unit is poorly suited for log landings and natural road surfaces because of wetness, ponding, and frequent flooding. A higher position on the landscape should be considered for log landings as well as harvesting operations. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness, ponding, and frequent flooding from a nearby stream. Selecting sites in higher, better drained, nearby areas is recommended to reduce these limitations.

Septic Tank Absorption

This map unit is very limited because of the filtering capacity of the soil, wetness or the depth to saturated zone, ponding, and frequent flooding. Inadequate filtering by the soil above a saturated zone may result in pollution of groundwater. Higher, better drained, nearby sites should be considered for this use.

This unit is in capability subclass 5w.

FU—Fluvaquents-Udipsamments complex, flooded

This unit consists of deep to very deep, nearly level, very poorly drained to well drained soils. They are formed in recent alluvial deposits along streams in the Adirondack foothills. Fluvaquents are low lying and flood frequently, while Udipsamments are on slightly higher areas and are better drained. Fluvaquents make up about 55 percent of the unit, Udipsamments about 25 percent and other soils about 20 percent. The soils are so intermingled that it was not possible to map them separately. They are subject to extreme change during flood periods. Many areas are cut by old drainage channels. Large areas consist of stratified gravelly deposits that may have a thin surface of silty alluvium. Slope ranges from 0 to 3 percent.

Typically, Fluvaquents have a grayish or brownish surface layer that ranges from gravelly loamy sand to sandy loam. Thickness of the surface layer is from 6 to 15 inches. The substratum is mottled brownish or grayish, and has textures ranging from very gravelly sand to silt loam.

Udipsamments typically have a brownish surface layer that ranges from sand to loamy sand, with or without gravelly analogs. The substratum is brownish, ranging in texture from to sand to loamy fine sand, with or without gravelly analogues, and may be stratified.

Included with this unit in mapping are small areas of poorly drained Lyme soils and mucky Wonsqueak soils. Gravel and sand bars and bedrock outcroppings are in a few places. Included areas are up to 10 acres and make up about 20 percent of the unit.

Most of this unit flood frequently. The Fluvaquents part of this unit is commonly wet. Bedrock is usually at a depth greater than 40 inches. Permeability, available water capacity, organic matter content and soil reaction vary with the composition of the material.

Most acreage of this complex is wooded or covered with brush.

Frequent flooding and wetness, gouging and deposition of gravel and cobbles on the surface, and the short growing season make this unit unsuited for agricultural use.

Cropland

The Fluvaquents part of this map unit is not suited to cultivated crops because of wetness and frequent flooding. Unless drained, the seasonal high water table interferes with cultivation during much of the year. When outlets are available, surface or subsurface drainage systems may allow some areas to be cultivated. However, some areas of this map unit are considered to be valuable wetland habitat. The Udipsamments part of this unit tends to be droughty and too sandy.

Pasture

The Fluvaquents part of this map unit is poorly suited to pasture, except in the driest years. Valuable wetland species may be displaced and palatable forage species are typically few. Proper stocking rates and timely deferment of grazing in the spring and after rainy periods will reduce compaction and the loss of seeding.

Recreation

This map unit is very limited for most recreational uses because of the depth to the saturated zone and ponding in the Fluvaquents part. Campsites and playgrounds are also very limited because of frequent and sometimes rapid flooding in the Fluvaquents part of this unit. A higher, drier site should be considered for these uses. The Udipsamments part of this unit is only somewhat limited to these uses because of its high sand content, which may limit vegetative growth and pedestrian traffic. Additional loamy fill material and improved drainage are commonly applied in areas of Fluvaquents, but are not recommended because of the important hydrologic and biologic functions of flood plain areas.

Woodland

The potential productivity of this unit for wood production is very low. Brush and low-grade timber such as cottonwood, red maple, and poplar will grow in many places and make suitable wildlife habitat. This map unit is poorly suited for log landings and natural road surfaces because of wetness, ponding, and frequent flooding in the Fluvaquents part. A higher position on the landscape, perhaps in the Udipsamments part, should be considered for log landings as well as harvesting operations. There is also a high potential for seedling mortality in the Fluvaquents part of this unit because of wetness. Wetness-tolerant species should be selected for these areas, and more drought resistant species should be considered for managing in the Udipsamments part.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness, ponding, and frequent flooding in the Fluvaquents part. Selecting sites in higher, better drained nearby areas is recommended to reduce these limitations.

Septic Tank Absorption Fields

This map unit is very limited because of its filtering capacity, and because of wetness or the depth to saturated zone, ponding, and frequent flooding in the Fluvaquents part. Inadequate filtering by the soil above a saturated zone may result in pollution of groundwater. Higher, better drained nearby sites should be considered for this use. This unit is so variable that on-site evaluations are needed to properly evaluate individual areas.

The capability subclass for Fluvaquents is 5w, and for Udipsamments is 7s.

GaB—Galway loam, 3 to 8 percent slopes

This moderately deep, gently sloping, well drained to moderately well drained soil formed in glacial till over calcareous sandstone or limestone. It is on bedrock controlled landscapes in the uplands. Individual areas range mainly from 5 to 20 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 6 inches, dark grayish brown loam

Subsoil:
6 to 28 inches, dark yellowish brown loam
28 to 30 inches, mottled dark brown fine sandy loam
30 inches, creviced gray calcareous sandstone bedrock

Included with this soil in mapping are small areas of deep Charlton soils and shallow Farmington soils. Also included are areas of somewhat poorly drained Newstead soils. Included areas are up to 5 acres and make up about 35 percent of the unit.

Soil Properties

Permeability: moderate throughout
Available water capacity (average for 40-inch profile): moderate
Soil reaction: moderately acid to neutral in the surface horizon; moderately acid to slightly alkaline in the subsoil
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 1.5 to 3 feet at some time during March and April
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland map unit are used for agriculture. Some areas are woodlots, orchards, or Christmas tree and nursery stock plantations.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during rainy periods can prevent erosion, compaction and destruction of sod cover.

Recreation

This map unit is very limited for playground use because of the slope. Some additional grading and smoothing may be needed.

Woodland

The potential productivity is moderately high for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of the slope and the relatively low soil strength within the upper soil profile. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock and the depth to a seasonally saturated zone above the bedrock. Very deep inclusions of Charlton soils or nearby areas may cost less to build a structure with a basement. In addition to tile drains around foundations, fill material may be needed to landscape around basement walls.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to the saturated zone in the spring, and the depth to bedrock. Selection of very deep, well drained, nearby areas, or included areas of Charlton soils may reduce these limitations.

The capability subclass is 2e.

GaC—Galway loam, 8 to 15 percent slopes

This moderately deep, strongly sloping, well drained soil formed in glacial till over calcareous sandstone or limestone. It is on bedrock controlled landscapes in the uplands. Individual areas range mainly from 5 to 20 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 6 inches, dark grayish brown loam

Subsoil:
6 to 28 inches, dark yellowish brown loam
28 to 30 inches, mottled dark brown fine sandy loam
30 inches, creviced gray calcareous sandstone bedrock

Included with this soil in mapping are small areas of deep Charlton soils and shallow Farmington soils. Also included are areas of somewhat poorly drained Newstead soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate throughout
Available water capacity (average for 40-inch profile): moderate
Soil reaction: moderately acid to neutral in the surface horizon; moderately acid to slightly alkaline in the subsoil
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: 1.5 to 3 feet at some time during March and April
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are used for woodlots, orchards, or Christmas tree and nursery stock plantations.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playground use because of the slope. Additional grading and smoothing will be needed, particularly for playground use.

Woodland

The potential productivity is moderately high for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of slope and the relatively low soil strength within the upper soil profile. Additional fill material and grading may be necessary to efficiently stack and process logs. There is a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock and the depth to a seasonally saturated zone above the bedrock. Very deep inclusions of Charlton soils or nearby areas may cost less to build a structure with a basement. In addition to tile drains around foundations, fill material may be needed to landscape around basement walls.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to the saturated zone in the spring, and the depth to bedrock. The selection of very deep and well drained nearby areas, or included areas of Charlton soils may reduce these limitations.

The capability subclass is 3e.

HcA—Hinckley gravelly loamy sand, nearly level

This very deep, excessively drained soil formed in water-sorted sand and gravel. It is on outwash plains and deltas. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 30 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 6 inches, very dark grayish brown gravelly loamy sand

Subsoil:
6 to 16 inches, yellowish brown gravelly loamy sand
16 to 20 inches, yellowish brown very gravelly sand

Substratum:
20 to 72 inches, light brownish gray stratified sand and gravel

Included with this soil in mapping are small areas of loamy skeletal Chenango soil and sandy Windsor soil. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: rapid in the solum; very rapid in the stratified substratum
Available water capacity (average for 40-inch profile): very low
Soil reaction: extremely acid to moderately acid throughout
Surface runoff: slow
Erosion hazard: slight
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Some areas of this map unit are used for agriculture. Many areas are in woodlots, orchards, or are being used as sites for residential development. This soil is a probable source of sand and gravel.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay and some fruits and vegetables. However, the very low available water capacity may reduce yields significantly. Use of cover crops or sod-forming crops, and return of crop residues to the soil help to improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can allow for regrowth after dry periods. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of the high gravel content in the soil. It is also droughty for use as golf fairways. Gravel-free, loamy fill material may improve conditions for these uses. A significant amount of quality fill material may be necessary to provide if this unit is used for playgrounds.

Woodland

The potential productivity is high for eastern white pine. This unit is moderately limited for log landings, natural road surfaces, and harvesting equipment because of the relatively high sand content. Sandy conditions may affect stability and efficiency while operating heavy equipment. Fill material of a slightly loamier nature may improve conditions. Trees to manage include eastern white pine and European larch.

Dwellings with basements

This map unit is not limited for use as dwellings.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering by soil may result in pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3s.

HcB—Hinckley gravelly loamy sand, undulating

This very deep, excessively drained soil formed in water-sorted sand and gravel. It is on outwash plains and deltas. Slopes range from 3 to 8 percent and is complex. Individual areas range mainly from 5 to 30 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:

0 to 6 inches, very dark grayish brown gravelly loamy sand

Subsoil:

6 to 16 inches, yellowish brown gravelly loamy sand

16 to 20 inches, yellowish brown very gravelly sand

Substratum:

20 to 72 inches, light brownish gray stratified sand and gravel

Included with this soil in mapping are small areas of loamy skeletal Chenango soil and sandy Windsor soil. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: rapid in the solum; very rapid in the stratified substratum

Available water capacity (average for 40-inch profile): very low

Soil reaction: extremely acid to moderately acid throughout

Surface runoff: slow

Erosion hazard: slight

Depth to water table: greater than 6 feet

Depth to bedrock: greater than 60 inches

Flooding hazard: none

Use and Suitability

Some areas of this map unit are used for agriculture. Many areas are used for woodlots, orchards, borrow pits, or are being used as sites for residential development. This map unit is a probable source of sand and gravel.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. However, the very low available water capacity may reduce yields significantly. The use of cover crops or sod-forming crops, and the return of crop residues to the soil help to improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can allow for regrowth after dry periods. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of the slope and the high gravel content in the soil. A significant amount of quality gravel-free fill material may be necessary to provide for playground use.

Woodland

The potential productivity for eastern white pine is high. This unit is moderately limited for log landings and natural road surfaces because of the relatively high sand content and the slope. Sandy conditions may affect stability while operating heavy equipment. Fill material of a slightly loamier nature may improve conditions. Some leveling may be needed for processing and loading logs at landing sites. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include eastern white pine and European larch.

Dwellings with basements

This map unit is not limited for use as a site for dwellings.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering by the soil may result in the pollution of the groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3s.

HcC—Hinckley gravelly loamy sand, rolling

This very deep, excessively drained soil formed in water-sorted sand and gravel. It is on deltas, kames and eskers. Slopes range from 8 to 15 percent and is complex. Individual areas range mainly from 10 to 30 acres and are rectangular or serpentine.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 6 inches, very dark grayish brown gravelly loamy sand

Subsoil:
6 to 16 inches, yellowish brown gravelly loamy sand
16 to 20 inches, yellowish brown very gravelly sand

Substratum:
20 to 72 inches, light brownish gray stratified sand and gravel

Included with this soil in mapping are small areas of loamy skeletal Chenango soil and sandy Windsor soil. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: rapid in the solum; very rapid in the stratified substratum
Available water capacity (average for 40-inch profile): very low
Soil reaction: extremely acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Some areas of this soil are used for agriculture. Many areas are in woodlots, orchards, borrow pits, or are being used as sites for residential development. This soil is a probable source of sand and gravel.

Cropland

This map unit is poorly suited to cultivated crops. It may be used to grow small grains, corn silage, hay, and some fruits and vegetables. However, the very low available water capacity limits plant growth in most years. On long slopes and on areas bare of plant cover, this soil may also erode. The use of cover crops or sod-forming crops, and the return of crop residues to the soil can improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. Proper stocking rates and timely deferment of grazing, to allow for regrowth after dry periods, as well as weed control, will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of the high gravel content and the rolling slope. Grading and smoothing for campsites, picnic areas, golf fairways, and especially playground sites will be needed in most areas of this map unit. Less sloping, included or nearby areas will likely cost less to develop playgrounds than in most areas of this unit. Gravel-free, loamy fill material may improve conditions for golf fairways and other uses. A significant amount of quality fill material may be necessary to provide playground use.

Woodland

The potential productivity is high for eastern white pine. This unit is somewhat limited for log landings and natural road surfaces because of the high sand content and the slope. Sandy conditions may affect stability while operating heavy equipment. Some leveling may be needed for processing and loading logs at landing sites. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include eastern white pine and European larch.

Dwellings with basements

This map unit is somewhat limited for dwellings with basements because of the slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering of the soil may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of the effluent. Selecting less sloping sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 4s.

HcD—Hinckley gravelly loamy sand, hilly

This very deep, excessively drained soil formed in water-sorted sand and gravel. It is on deltas, kames, and eskers. Slopes range from 15 to 25 percent and is complex. Individual areas range mainly from 10 to 30 acres and are irregular or serpentine.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 6 inches, very dark grayish brown gravelly loamy sand

Subsoil:
6 to 16 inches, yellowish brown gravelly loamy sand
16 to 20 inches, yellowish brown very gravelly sand

Substratum:
20 to 72 inches, light brownish gray stratified sand and gravel

Included with this soil in mapping are small areas of loamy skeletal Chenango soil and sandy Windsor soil. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: rapid in the solum; very rapid in the stratified substratum
Available water capacity (average for 40-inch profile): very low
Soil reaction: extremely acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Some areas of this soil are used for agriculture. Many areas are in woodlots, orchards, or borrow pits. This soil is a probable source of sand and gravel.

Cropland

This map unit is not suited to cultivated crops. It can be used to grow hay, although the very low available water capacity limits growth in most years. On long slopes, and areas bare of plant cover, these soils may erode. Use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

Most areas of this map unit are poorly suited to pasture. Droughtiness because of very low available water capacity is a major management problem in obtaining good forage. Rotational grazing, deferred grazing during dry conditions, and weed control will help to improve forage conditions.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds and golf fairways because of hilly slope. This unit is also very limited for playgrounds because of the high gravel content. Less sloping included or nearby areas will likely cost less to develop. Extensive grading and smoothing will be necessary in most areas of this map unit. Gravel-free fill material will improve conditions for these uses.

Woodland

The potential productivity is high for eastern white pine. This map unit is poorly suited for log landings, natural road surfaces, and mechanical planting because of the slope. Establishing log landings at a nearly level or gently sloping area will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of the slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include eastern white pine and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and its hilly slope. Inadequate filtering of the soil may result in the pollution of groundwater. Less sloping sites with moderately permeable soils in nearby areas should be considered. Alternative septic system designs should be considered to insure adequate treatment of the effluent.

The capability subclass is 6s.

HoA—Hoosic gravelly sandy loam, nearly level

This very deep, somewhat excessively drained soil formed in water-sorted sand and gravel. It is on outwash plains. Slopes range from 0 to 3 percent. Individual areas range mainly from 10 to 50 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 9 inches, very dark grayish brown gravelly sandy loam

Subsoil:
9 to 18 inches, yellowish brown gravelly sandy loam
18 to 24 inches, yellowish brown very gravelly loamy sand

Substratum:
24 to 72 inches, brown and dark grayish brown stratified sand and gravel

Included with this soil in mapping are small areas of well drained gravelly Chenango soils. Also included are areas of sandy Windsor or Oakville soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately rapid or rapid in the solum, very rapid in the stratified substratum
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid or strongly acid above 30 inches, very strongly acid to moderately acid below
Surface runoff: slow
Erosion hazard: slight
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development. This map unit is a probable source of sand and gravel.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay and some fruits and vegetables. However, the very low available water capacity may reduce yields significantly. Use of cover crops or sod-forming crops, and return of crop residues to the soil help to improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can allow for regrowth after dry periods. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of the high gravel content in the soil. This map unit is also very limited for golf fairways because of the droughtiness of the soil. Gravel-free, loamier fill topsoil will improve conditions for these uses.

Woodland

The potential productivity is moderately high for northern red oak. This map unit is not limited for most woodland management activities, but is only moderately suited for mechanical planting. The relatively high gravel content in the surface may cause some difficulty in planting seedlings. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is not limited for use as a site for dwellings.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering of the soil may result in pollution of the groundwater. Alternative septic system designs should be considered to insure adequate treatment of the effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3s.

HoB—Hoosic gravelly sandy loam, undulating

This very deep, somewhat excessively drained soil formed in water-sorted sand and gravel. It is on outwash plains. Slopes are complex and range from 3 to 8 percent. Individual areas range mainly from 20 to 80 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, very dark grayish brown gravelly sandy loam

Subsoil:
9 to 18 inches, yellowish brown gravelly sandy loam
18 to 24 inches, yellowish brown very gravelly loamy sand

Substratum:
24 to 72 inches, brown and dark grayish brown stratified sand and gravel

Included with this soil in mapping are small areas of well drained, loamy and gravelly Chenango soils. Also included are areas of sandy Windsor or Oakville soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately rapid or rapid in the solum, very rapid in the stratified substratum.
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid or strongly acid above 30 inches, very strongly acid to moderately acid below
Surface runoff: slow
Erosion hazard: slight
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development. This map unit is a probable source of sand and gravel.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay and some fruits and vegetables. However, the very low available water capacity may reduce yields significantly. Use of cover crops or sod-forming crops, and return of crop residues to the soil help to improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This soil is well suited to pasture. Proper stocking rates and timely deferment of grazing can allow for regrowth after dry periods. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of the slope and the relatively high gravel content in the soil. This unit is also very limited for golf fairways because of droughtiness. Gravel-free, loamy topsoil will improve conditions for these uses. A significant amount of quality fill material and grading may be necessary if this site is used for playgrounds.

Woodland

The potential productivity is moderately high for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of the slope. Some land leveling may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. This unit is only moderately suited for mechanical planting. The relatively high gravel content in the surface may cause some difficulty in planting seedlings. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is not limited for use as a site for dwellings.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering of the soil may result in the pollution of the groundwater. Alternative septic system designs should be considered to insure adequate treatment of the effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3s.

HoC—Hoosic gravelly sandy loam, rolling

This very deep, somewhat excessively drained soil formed in water-sorted sand and gravel. It is on outwash plains, eskers, and moraines. Slopes are complex and range from 8 to 15 percent. Individual areas range mainly from 20 to 80 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, very dark grayish brown gravelly sandy loam

Subsoil:
9 to 18 inches, yellowish brown gravelly sandy loam
18 to 24 inches, yellowish brown very gravelly loamy sand

Substratum:
24 to 72 inches, brown and dark grayish brown stratified sand and gravel

Included with this soil in mapping are small areas of well drained loamy and gravelly Chenango soils. Also included are areas of sandy Windsor or Oakville soils, and areas of Hoosic soil with slopes greater than 15 percent. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately rapid or rapid in the solum, very rapid in the stratified substratum
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid or strongly acid above 30 inches, very strongly acid to moderately acid below
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Some areas of this map unit are used for agriculture. Some areas are in woodlots or orchards. Many areas are being used as sites for residential development. This map unit is a probable source of sand and gravel, and many areas are being excavated.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues to the soil help to reduce erosion, improve available water capacity, and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing, especially during dry periods, can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of the high gravel content and the rolling slope. This unit is also very limited for golf fairways because of droughtiness. Grading and smoothing, especially for playground sites, will be needed in most areas of this map unit. Less sloping, included or nearby areas will likely be less costly to develop for playgrounds than in most areas of this unit. Gravel-free topsoil will improve conditions for these uses. A significant amount of quality fill material may be necessary to provide if this unit is used for playgrounds.

Woodland

The potential productivity is moderately high for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of slope. Some land leveling may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. This unit is only moderately suited for mechanical planting. The relatively high gravel content in the surface may cause some difficulty in planting seedlings. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is somewhat limited for dwellings with basements because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering of the soil may result in pollution of the groundwater. Alternative septic system designs should be considered to insure adequate treatment of the effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3e.

HuB—Hudson silt loam, 3 to 8 percent slopes

This very deep, gently sloping, moderately well drained soil formed in water deposited material high in clay. It is on old lake plains. Individual areas range mainly from 10 to 40 acres and are generally oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, dark grayish brown silt loam

Subsoil:
8 to 13 inches, yellowish brown silty clay loam
13 to 32 inches, mottled light olive brown silty clay

Substratum:
32 to 72 inches, brown and olive brown clay

Included with this soil in mapping are small areas of somewhat poorly drained Rhinebeck soils in slight depressions and along drainageways. Also included are areas of Unadilla and Scio soils, which are high in coarse silt and very fine sand. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate or moderately slow in the surface and upper subsoil, slow or very slow below the upper subsoil
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to neutral in the surface and upper subsoil, moderately acid to slightly alkaline in the lower subsoil, and neutral to moderately alkaline in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 2 feet at some time during November through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction and destruction of sod cover.

Recreation

This map unit is very limited for campsites, picnic areas, and playgrounds because of restricted permeability. This unit is also very limited for playground use because of the slope. The addition of fill material and improved drainage may be needed if this map unit is used for recreational purposes.

Woodland

The potential productivity is moderately high for northern red oak. This map unit is moderately suited to log landings and natural road surfaces because of the slope, seasonal wetness, and relatively low soil strength within the upper soil profile. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include eastern white pine, black cherry, and black walnut.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in well drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation (fig. 7).

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in the lower subsoil, and the depth to the saturated zone, especially in the spring. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 2e.

HuC—Hudson silt loam, 8 to 15 percent slopes

This very deep, strongly sloping, moderately well drained soil formed in water deposited material high in clay. It is on old lake plains. Individual areas range mainly from 10 to 40 acres and are generally oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, dark grayish brown silt loam

Figure 7.—Hudson soils, although excellent farmland, may present problems during excavation for construction because of wetness and slippage when the soil is left exposed.

Subsoil:
8 to 13 inches, yellowish brown silty clay loam
13 to 32 inches, mottled light olive brown silty clay

Substratum:
32 to 72 inches, brown and olive brown clay

Included with this soil in mapping are small areas of somewhat poorly drained Rhinebeck soils in slight depressions and along drainageways. Also included are areas of Unadilla and Scio soils, which are high in silt and very fine sand. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate or moderately slow in the surface and upper subsoil, slow or very slow below the upper subsoil
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to neutral in the surface and upper subsoil, moderately acid to slightly alkaline in the lower subsoil, and neutral to moderately alkaline in the substratum
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: 1.5 to 2 feet occasionally during November through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Many areas of this map unit are used for agriculture. Some areas are in pasture, woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this clayey soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for campsites, picnic areas, and playgrounds because of the restricted permeability. This unit is also very limited for playground use because of the slope. The addition of fill material and improved drainage may be needed if this map unit is used for recreational purposes. Additional grading and smoothing will be needed, particularly for playground use. Water erosion is a concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited to log landings and natural road surfaces because of the slope, the seasonal wetness, and the relatively low soil strength within the upper soil profile. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include eastern white pine, black cherry, and black walnut.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the wetness or the depth to saturated zone. Selecting sites in well drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in the lower subsoil, and the depth to the saturated zone, especially in the spring. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 3e.

HuD—Hudson silt loam, hilly

This very deep, moderately well drained soil formed in water deposited material that is high in clay. It is on old lake plains. Slopes range from 15 to 25 percent, and is complex. Individual areas range mainly from 10 to 30 acres and are irregular in shape.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, dark grayish brown silt loam

Subsoil:
8 to 13 inches, yellowish brown silty clay loam
13 to 32 inches, mottled light olive brown silty clay

Substratum:
32 to 72 inches, brown and olive brown clay

Included with this soil in mapping are small areas of somewhat poorly drained Rhinebeck soils in slight depressions and along drainageways. Also included are areas of Unadilla and Scio soils, which are high in silt and very fine sand. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate to moderately slow in the surface and upper subsoil, slow or very slow below the upper subsoil
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to neutral in the surface and upper subsoil, moderately acid to slightly alkaline in the lower subsoil, and neutral to moderately alkaline in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: 1.5 to 2 feet occasionally during November through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Some areas of this map unit are used for agriculture. Most areas are in pasture, woodlots, orchards, or are being used as sites for residential development.

Cropland

The soils in this map unit are poorly suited to cultivated crops. On long, poorly vegetated slopes, these clayey soils erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. If overgrazing occurs, erosion can be a hazard because of the slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

Most recreational uses are very limited because of the hilly slope. Playgrounds, campsites, and picnic areas are also very limited by the restricted permeability of the soil. Extensive grading, smoothing and random drainage will be needed in most areas if this map unit is used for playgrounds, campsites and picnic areas. Less sloping nearby areas should be considered. Water erosion is a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is poorly suited for log landings, natural road surfaces and mechanical planting because of the hilly slope. Establishing log landings at a nearly level or gently sloping area will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of the slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include eastern white pine, black cherry, and black walnut.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone and the hilly slope. Selecting sites in less sloping, better drained, nearby areas should be considered. Tile drains around foundation footings, protective coatings on basement walls, and diverting water away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of its hilly slope, the restricted permeability in the lower subsoil, and the depth to saturated zone, especially in the spring. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 4e.

HuE—Hudson silt loam, 25 to 35 percent slopes

This very deep, steep, moderately well drained soil formed in water deposited material high in clay. It is on eroded sides of gullies in old lake plains. Individual areas range mainly from 20 to 40 acres and are irregular in shape.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 8 inches, dark grayish brown silt loam

Subsoil:
8 to 13 inches, yellowish brown silty clay loam
13 to 32 inches, mottled light olive brown silty clay

Substratum:
32 to 72 inches, brown and olive brown clay

Included with this soil in mapping are small areas of somewhat poorly drained Rhinebeck soils in slight depressions and along drainageways. Also included are areas of Unadilla and Scio soils, which are high in silt and very fine sand. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate or moderately slow in the surface and upper subsoil, slow or very slow below the upper subsoil
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to neutral in the surface and upper subsoil, moderately acid to slightly alkaline in the lower subsoil, and neutral to moderately alkaline in the substratum
Surface runoff: very rapid
Erosion hazard: very severe
Depth to water table: 1.5 to 2 feet at some time during November through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Few areas of this map unit are used for agriculture. Most areas are wooded or are being left idle. A small area is used for pasture.

Cropland

This map unit is not suited to cultivated crops because of the slope. On long, poorly vegetated slopes, this clayey soil erodes easily. Use of sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This soil is poorly suited to pasture. Steep slope on clayey soils causes a severe erosion hazard if sod cover is not maintained. Proper stocking rates and timely deferment of grazing will help maintain sod cover and reduce the risk of erosion.

Recreation

Most uses are very limited because of the steep slope. Playgrounds, campsites, and picnic areas are also very limited by the restricted permeability. Less sloping nearby areas should be considered. Extensive grading, smoothing, and random drainage will be needed in most areas of this map unit. Water erosion is a severe management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity for northern red oak is moderate. This map unit is poorly suited for log landings and natural road surfaces because of the steep slope. This unit is not suited for mechanical planting because of slope. Establishing log landings at a nearly level or gently sloping area will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of steep slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be routed around this unit or designed to follow the slope contour, where possible. Trees to manage include eastern white pine, black cherry, and black walnut.

Dwellings with basements

This map unit is very limited for dwellings with basements because of seasonal wetness and the steep slope. Selecting sites in well drained, gently sloping, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and diverting water away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of its steep slope, the restricted permeability in the lower subsoil, and the depth to saturated zone, especially in the spring. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 6e.

In—Ilion silt loam

This very deep, nearly level, poorly drained soil formed in clayey glacial till. It is at the base of slopes and in depressions on till plains. Slopes range from 0 to 3 percent. Individual areas range mainly from 3 to 20 acres and are oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, very dark gray silt loam

Subsurface:
9 to 14 inches, mottled dark grayish brown silt loam
14 to 18 inches, mottled grayish brown silt loam

Subsoil:
18 to 32 inches, mottled grayish brown silty clay loam
32 to 40 inches, mottled dark grayish brown silty clay loam

Substratum:
40 to 50 inches, mottled dark grayish brown channery silt clay loam
50 to 72 inches, mottled grayish brown channery silt loam

Included with this soil in mapping are small areas of somewhat poorly drained Burdett soils. Included areas are up to 5 acres and make up about 10 percent of the unit.

Soil Properties

Permeability: moderate or moderately slow in the surface and upper subsoil, slow or very slow below the upper subsoil
Available water capacity (average for 40-inch profile): high
Soil reaction: moderately acid to neutral in the surface and upper subsoil, moderately acid to slightly alkaline in the clayey subsoil, and slightly or moderately alkaline in the lower subsoil and substratum
Surface runoff: slow

Erosion hazard: slight
Depth to water table: at the surface to a depth of 1.0 foot during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most cleared areas of this map unit are used for growing hay, or as pasture. Some small areas are included in crop fields with drier soils. Many areas are wooded or are idle and reverting to woodland.

Cropland

This map unit is poorly suited to cultivated crops. Wetness, especially in the spring, limits the use of heavy equipment for cultivation, and restricts the rooting depth. Installation of subsurface drainage systems can lower the water table if adequate outlets can be designed. Areas of this soil may be considered valuable wetland habitat.

Pasture

This map unit is moderately suited to pasture. Proper stocking rates and timely deferment of grazing during the wet periods can help prevent compaction and damage to the sod, and maintain forage yields.

Recreation

This map unit is very limited for most recreational uses because of the depth to saturated zone. Campsites, picnic areas, and playgrounds are also very limited because of the restricted permeability. The addition of fill material and improved drainage will be needed in most areas of this map unit to make these uses functional. A higher, drier site should be considered for these uses.

Woodland

The potential productivity for eastern white pine is very high. This map unit is poorly suited for log landings and natural road surfaces because of wetness. Improved drainage and the addition of fill material may be needed in most areas of this unit. Higher, more-convex positions should be considered. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include eastern white pine and white spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability and the depth to the saturated zone. A nearby well drained site should be considered for this use.
The capability subclass is 4w.

Lm—Limerick-Saco complex

This unit consists of very deep, poorly drained Limerick soils and very deep, very poorly drained Saco soils. The soils formed in recent alluvium on flood plains. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 20 acres and are long and narrow, paralleling streams.
The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The map unit consists of about 50 percent Limerick soils, 40 percent Saco soils, and 10 percent other soils.
The typical sequence, depth, and composition of the layers of these soils are as follows—

Limerick soils

Surface layer:
2 inches of a thick black mat of mostly undecomposed leaves and twigs
0 to 5 inches, mottled, dark olive gray silt loam

Substratum:
5 to 23 inches, mottled dark gray silt loam
23 to 44 inches, mottled gray very fine sandy loam
44 to 72 inches, very dark gray loamy fine sand

Saco soils

Surface:
0 to 10 inches, very dark grayish brown silt loam
10 to 13 inches, mottled very dark grayish brown silt loam

Substratum:
13 to 23 inches, mottled grayish brown silt loam
23 to 72 inches, mottled olive gray silt loam

Included with these soils in mapping are small areas of moderately well drained Teel soils, and areas of recently deposited Fluvaquents. Included areas are up to 5 acres and make up about 10 percent of the unit.

Soil Properties

Limerick soils

Permeability: moderate above a depth of 40 inches
Available water capacity (average for 40-inch profile): high

Soil reaction: strongly acid to neutral in the surface layer, and moderately acid to neutral in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 0 to 1.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: frequent, brief, November to May

Saco soils

Permeability: moderate above a depth of 40 inches
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to neutral above 30 inches, and moderately acid to neutral below
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 0 to .5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: frequent, brief, October to May

Use and Suitability

Most areas of this complex are forested. Some areas are used for hay or pasture on dairy farms.

Cropland

This map unit is not suited to cultivated crops. Unless drained, the seasonal high water table interferes with cultivation during much of the year. When outlets are available, surface or subsurface drainage systems may allow some areas to be cultivated. However, many areas of this map unit are considered to be valuable wetland habitat.

Pasture

This map unit is poorly suited to pasture, except in the driest years. Valuable wetland species may be displaced and palatable forage species are typically few. Proper stocking rates and timely deferment of grazing in the spring and after rainy periods will reduce compaction and the loss of seeding.

Recreation

This map unit is very limited for most recreational uses because of the depth to the saturated zone. Campsites, playgrounds, and golf fairways are also very limited because of frequent flooding. A higher, drier site should be considered for these uses. Additional fill material and improved drainage are sometimes practiced, but are not recommended within this map unit because of the important hydrologic and biologic functions of flood plains.

Woodland

The potential productivity for red maple is moderate. This map unit is poorly suited for log landings and natural road surfaces because of wetness and frequent flooding. A higher position on the landscape should be considered for log landings as well as other operations. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include white spruce and eastern white cedar.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the wetness and frequent flooding from a nearby stream. Selecting sites in higher, better drained, nearby areas is recommended to reduce these limitations.

Septic Tank Absorption Fields

This map unit is very limited because of the depth to the saturated zone and frequent flooding. Inadequate filtering of effluent above the saturated zone may result in pollution of the surface water or ground water. Higher, better drained nearby areas should be considered for this use.

The capability subclass is 5w.

LY—Lyme fine sandy loam, very stony

This very deep, poorly drained soil formed in loamy glacial till. It is in depressions on till plains in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 20 acres and are oval or irregular. Stones are 10 to 30 feet apart on the surface. Slopes range from 0 to 3 percent.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, black fine sandy loam

Subsoil:
8 to 14 inches, dark grayish brown sandy loam
14 to 23 inches, mottled dark grayish brown sandy loam

Substratum:
23 to 35 inches, mottled brown sandy loam
35 to 72 inches, mottled dark brown loamy sand

Included with this soil in mapping are small areas of moderately well drained Skerry soils and mucky Wonsqueak soils. Included areas are up to 10 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate to moderately rapid throughout
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid or strongly acid throughout
Surface runoff: slow
Erosion hazard: none
Depth to water table: 0 to 1.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. A few small areas are used as unimproved pasture.

Cropland

This map unit is not suited to cultivated crops or hay. The main limitations are wetness, boulders and stones on the surface, and the relatively short growing season because of the high elevation.

Pasture

This map unit is poorly suited to pasture. The seasonal high water table and many large surface stones make proper pasture management difficult. The short growing season also reduces forage production in comparison to lower elevation areas.

Recreation

This map unit is very limited for many recreational uses because of the depth to saturated zone. Higher, better-drained areas should be considered for these uses. The addition of fill material and adequate drainage will greatly improve conditions for recreational uses; however, this unit may be a valuable wetland habitat.

Woodland

The potential productivity for eastern white pine is high. This map unit is poorly suited for log landings and natural road surfaces because of wetness. Improved drainage and the addition of fill material may be needed in most areas of this unit. Higher, more-convex positions should be considered. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include eastern white pine and white spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Higher, well drained, nearby areas should be considered.

Septic Tank Absorption Fields

This map unit is very limited because of the depth to saturated zone. Inadequate filtering of effluent above the saturated zone may result in the pollution of the surface water or ground water. Higher, better drained nearby areas should be considered for this use.

The capability subclass is 7s.

Ma—Madalin mucky silty clay loam

This very deep, nearly level, very poorly drained soil formed in water deposited silt and clay. It is in depressions on old lake plains. Slopes range from 0 to 3 percent. Individual areas range mainly from 3 to 10 acres and are narrow strips along drainageways.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, black, mucky silty clay loam

Subsoil:
9 to 13 inches, mottled, gray silty clay
13 to 22 inches, gray and yellowish brown silty clay
22 to 36 inches, mottled, gray clay

Substratum:
36 to 72 inches, mottled, dark gray clay

Included with this soil in mapping are small areas of somewhat poorly drained Rhinebeck soils. Also included are areas of soils with very fine sandy loam surface layers, and soils with less organic matter in the surface layer. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: slow or very slow throughout
Available water capacity (average for 40-inch profile): high
Soil reaction: surface layer is strongly acid to slightly alkaline, and moderately acid to slightly alkaline in the subsoil, and neutral to moderately alkaline in the substratum
Surface runoff: slow to ponded
Erosion hazard: slight

Depth to water table: 0.5 foot above the surface to 1.0 foot below the surface at some time during November through June
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are in woodland. Some areas are used for hay or pasture.

Cropland

This map unit is not suited to cultivated crops. Unless drained, the seasonal high water table interferes with cultivation during much of the year. When outlets are available, surface or subsurface drainage systems may allow some areas to be cultivated. However, many areas of this map unit are considered to be valuable wetland habitat.

Pasture

This map unit is poorly suited to pasture, except in the driest years. Valuable wetland species may be displaced and palatable forage species are typically few. Proper stocking rates and timely deferment of grazing in the spring and after rainy periods will reduce compaction and the loss of seeding.

Recreation

This map unit is very limited for most recreational uses because of the depth to saturated zone and ponding. Campsites, picnic areas and playgrounds are also very limited because of restricted permeability. A higher, drier site should be considered for these uses. The addition of fill material and improved drainage will be needed in most areas of this map unit to make these uses functional. However, many areas of this unit may be valuable wetland habitat.

Woodland

The potential productivity for red maple is moderate. This map unit is poorly suited for log landings and natural road surfaces because of wetness and ponding. Higher, more-convex positions should be considered. Improved drainage and the addition of fill material may be needed in most areas of this unit. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include northern white cedar and white spruce.

Dwellings with Basements

This map unit is very limited for dwellings with basements because of wetness and ponding. Selecting sites in higher, better drained, nearby areas is recommended to reduce these limitations.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability and the depth to the saturated zone. A nearby well drained site should be considered for this use.

The capability subclass is 5w.

MnB—Manlius-Nassau complex, undulating, rocky

This unit consists of moderately deep, well drained Manlius soils and shallow, somewhat excessively drained Nassau soils. Slopes range from 3 to 8 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly oval and range from 10 to 30 acres.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The map unit consists of about 50 percent Manlius soils, 30 percent Nassau soils, 20 percent other soils including 1 percent rock outcrop.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Manlius soils

Surface layer:
0 to 5 inches, dark brown, channery silt loam

Subsoil:
5 to 18 inches, brown channery silt loam
8 to 21 inches, brown very channery silt loam

Substratum:
21 to 24 inches, yellowish brown extremely channery silt loam
24 inches, soft shale bedrock

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Included with this unit in mapping are small areas of very deep, well drained Bernardston or Broadalbin soils and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 20 percent of the map unit.

Soil Properties

Manlius soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): low
Soil reaction: extremely acid to strongly acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Soil Properties

Nassau soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid to strongly acid throughout the soil
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Many areas of this map unit are used for agriculture. Some areas are idle or wooded, in orchards, or being used as residential building sites.

Cropland

This map unit is moderately suited to cultivated crops. Rock outcrops can interfere with tillage. However, many areas can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, these soils may erode easily. The Nassau part of this unit can be droughty during summer months. Cross slope tillage around rock outcrops, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion, improve available water capacity, and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. Rock outcrops can be obstacles to maintaining good forage production. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds and golf fairways because of the depth to bedrock in the Nassau part. This unit is also very limited for playgrounds because of the rock fragment content and slope. However, only the Nassau part is too high in rock fragments for golf fairways. Nassau soil tend to be too drought for golf fairways. Fill material that is free of rock fragments may improve conditions for recreational use. A significant amount of quality fill material and leveling may be necessary if this map unit is used as playgrounds.

Woodland

In the Manlius part of this complex, the potential productivity for northern red oak is moderately high, and in the Nassau part it is moderate. This map unit has a severe limitation for the construction of roads and landings because of the depth to bedrock in the Nassau part. This map unit is moderately suited to log landings and natural road surfaces because of the undulating slope and relatively low soil strength within the upper soil profile of the Manlius part. Additional fill material and grading may be necessary to build roads and efficiently process logs. Roads should be routed around shallow to bedrock areas to avoid costly blasting and excavation. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock. Excavation may be difficult for machinery and necessitate blasting. Placing the building in the deeper nearby areas may save on site preparation costs.

Septic Tank Absorption Fields

This map unit is very limited by the depth to bedrock. Conventional systems may fail to treat effluent properly, and threaten the groundwater quality. Alternate sites in nearby deeper, well drained areas may work more effectively at a lower cost.

The capability subclass for Manlius is 3e, and for Nassau is 3s.

MnC—Manlius-Nassau complex, rolling, rocky

This unit consists of moderately deep, well drained Manlius soils and shallow, somewhat excessively drained Nassau soils. Slopes range from 8 to 15 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly oval and range from 10 to 30 acres.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Manlius soils, 30 percent Nassau soils, 20 percent other soils including 1 percent rock outcrop.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Manlius soils

Surface layer:
0 to 5 inches, dark brown, channery silt loam

Subsoil:
5 to 18 inches, brown channery silt loam
18 to 21 inches, brown very channery silt loam

Substratum:
21 to 24 inches, yellowish brown extremely channery silt loam
24 inches, soft shale bedrock

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Included with this unit in mapping are small areas of very deep, well drained Bernardston or Broadalbin soils and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 20 percent of the map unit.

Soil Properties

Manlius soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): low
Soil reaction: extremely acid to strongly acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Nassau soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid or strongly acid throughout the soil
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Many areas of this map unit are used for agriculture. Some areas are idle or wooded, in orchards, or are being used as residential building sites.

Cropland

The soils in this map unit are poorly suited to cultivated crops because of the erosion hazard and intermingled areas of rock outcrop which interfere with tillage. On long, poorly vegetated slopes, these soils erode easily. Applying cross slope tillage around rock outcrops, using cover crops or sod-forming crops, and returning crop residues to the soil help to reduce erosion and promote soil tilth.

Pasture

This map unit is moderately suited to pasture. Improvement of pasture is difficult because of slope and areas of rock outcrop. Proper stocking rates and timely deferment of grazing to allow for regrowth of forage, will help increase forage yields.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds and golf fairways because of the depth to bedrock in the Nassau part. This unit is also very limited for playgrounds because of rock fragment content and slope, although only the Nassau part is too high in rock fragments for golf fairways. Nassau soils tend to be too droughty for golf fairways. Fill material that is free of rock fragments may improve conditions for these uses. A significant amount of quality fill material and leveling may be necessary if this map unit is used as a site for playgrounds.

Woodland

In the Manlius part of this complex, the potential productivity for northern red oak is moderately high, and in the Nassau part it is moderate. This map unit has a severe limitation for the construction of roads and landings because of depth to bedrock in the Nassau part. This map unit is moderately suited to log landings and natural road surfaces because of undulating slope and relatively low soil strength within the upper soil profile of the Manlius part. Additional fill material and grading may be necessary to build roads and efficiently process logs. Roads should be routed around shallow to bedrock areas to avoid costly blasting and excavation. There is also a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the rolling slope and depth to bedrock. Excavation may be difficult for machinery and necessitate blasting. Intensive excavation, grading and smoothing will be necessary unless less sloping, very deep included soils can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping, very deep map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited by the depth to bedrock. Conventional systems may fail to treat effluent properly and threaten groundwater quality. Alternate sites in nearby deeper, well drained areas may work more effectively. The capability subclass is 4e.

MnD—Manlius-Nassau complex, hilly, rocky

This map unit consists of moderately deep, well drained Manlius soils, and shallow, somewhat excessively drained Nassau soils. Slopes range from 15 to 25 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly irregular in shape and range from 10 to 30 acres.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Manlius soils, 30 percent Nassau soils, and 20 percent other soils including 1 percent rock outcrop.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Manlius soils

Surface layer:
0 to 5 inches, dark brown, channery silt loam

Subsoil:
5 to 18 inches, brown channery silt loam
18 to 21 inches, brown very channery silt loam

Substratum:
21 to 24 inches, yellowish brown extremely channery silt loam
24 inches, soft shale bedrock

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Included with this unit in mapping are small areas of very deep, well drained Bernardston or Broadalbin soils and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 20 percent of the map unit.

Soil Properties

Manlius soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): low
Soil reaction: extremely acid to strongly acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Soil Properties

Nassau soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid to strongly acid throughout the soil
Surface runoff: rapid
Erosion hazard: severe

Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Some areas of this soil complex are used for agriculture. Many areas are idle or wooded, with a few areas included in sites being used as residential building lots.

Cropland

The soils in this map unit are not suited to cultivated crops because of the slope, erosion hazard, low available water capacity and intermingled areas of rock outcrop. Using sod-forming crops, and returning crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is poorly suited to pasture. Using proper stocking rates and timely deferment of grazing to allow for regrowth of forage, will help increase forage yields and reduce the hazard of erosion. Improvement of pasture is difficult because of the slope and areas of rock outcrop.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of the slope and in the Nassau part, depth to bedrock. This unit is also very limited for playgrounds because of the rock fragment content, although only the Nassau part is too high in rock fragments for golf fairways. Nassau soils tend to be too droughty for golf fairways. A less sloping, deeper, nearby site should be considered for these uses. Extensive grading and smoothing will be needed in many parts of this unit, especially for playgrounds. Gravel-free fill material will also improve conditions for some of these uses.

Woodland

In the Manlius part of this complex, the potential productivity for northern red oak is moderately high, and in the Nassau part it is moderate. This map unit is poorly suited for log landings and natural road surfaces because of its hilly slope. This map unit has a severe limitation for the construction of roads and landings because of the depth to bedrock in the Nassau part. Establishing log landings at a nearly level, deep area will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of the slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of its hilly slope and depth to bedrock. Excavation may be difficult for machinery and necessitate blasting. Placing the building in the deeper, less sloping nearby areas may save significantly on site preparation costs.

Septic Tank Absorption Fields

This map unit is very limited by the depth to bedrock and the slope. Conventional systems may fail to treat effluent properly and threaten groundwater quality. Alternate sites in nearby deeper, less sloping, well drained areas may work more effectively.

The capability subclass is 6e.

Ms—Massena silt loam

This very deep, nearly level, somewhat poorly drained soil formed in glacial till. It is on till plains in the uplands. Individual areas range mainly from 5 to 20 acres and are oval or irregular shaped. Slopes range from 0 to 3 percent.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, very dark grayish brown silt loam

Subsoil:
8 to 26 inches, mottled, olive brown fine sandy loam

Substratum:
26 to 30 inches, mottled, grayish brown loam
30 to 40 inches, mottled, dark grayish brown gravelly fine sandy loam
40 to 58 inches, mottled, olive brown gravelly fine sandy loam
58 to 72 inches, mottled, dark grayish brown very gravelly fine sandy loam

Included with this soil in mapping are small areas of moderately well drained Sutton soils and silty, shale Mosherville soils. Also included are areas where the slope is greater than 3 percent. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the surface, and moderately slow or slow in the subsoil and substratum
Available water capacity (average for 40-inch profile): moderate

Soil reaction: moderately acid to neutral in the solum, and neutral to moderately alkaline in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: .5 to 1.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Many areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are reverting to woodland. This map unit is considered prime farmland when the soil is adequately drained.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is very limited for camp areas and playgrounds because of the depth to saturated zone. Higher, better-drained areas should be considered for these uses. The addition of fill material or adequate drainage will greatly improve conditions for these uses.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited to log landings and natural road surfaces because of slope and relatively low soil strength within the upper soil profile. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include northern whitecedar and white spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in the substratum, and the depth to saturated zone, especially in the spring. Higher, well drained areas may be better sites for this use. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 3w.

MvA—Mosherville silt loam, 0 to 3 percent slopes

This very deep, nearly level, somewhat poorly drained soil formed in glacial till which has a dense lower subsoil and substratum. It is at the base of hills and on till plains in glaciated uplands. Individual areas range mainly from 5 to 30 acres and are oval or rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, very dark grayish brown silt loam

Subsoil:
9 to 16 inches, light olive brown loam
16 to 47 inches, mottled olive gravelly fine sandy loam

Substratum:
47 to 72 inches, olive brown gravelly fine sandy loam

Included with this soil in mapping are small areas of moderately well drained Broadalbin soils, and poorly drained to very poorly drained Sun soils in low areas and at the base of slopes. Also included are areas of Sutton soils which have a friable substratum, and Manlius soils which are 20 to 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: moderate in the surface and upper subsoil layers, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): low
Soil reaction: strongly acid to slightly acid in the surface layer and upper subsoil, strongly acid to neutral in the lower subsoil, and moderately acid to slightly alkaline in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: .5 to 1.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, or are idle and being allowed to revert to woodland.

Cropland

This soil is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect the sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is very limited for camp areas and playgrounds because of the depth to the saturated zone. Campsites, picnic areas, playgrounds, and golf fairways are also very limited by depth to the cemented pan causing restricted permeability. The addition of fill material and improved drainage will be needed in most areas of this map unit to make these uses functional. A higher, drier site should be considered for these uses.

Woodland

The potential productivity for sugar maple is moderate. This map unit is moderately suited for log landings and natural road surfaces because of wetness and the relatively low soil strength in the upper soil profile. Improved drainage or additional fill material may be needed in many areas of this unit. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include white spruce, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the wetness of the soil or the depth to the saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to cemented pan (or restricted permeability), and the depth to a saturated zone. Selecting sites that have a more permeable, well drained soil in nearby areas may reduce these limitations.

The capability subclass is 3w.

MvB—Mosherville silt loam, 3 to 8 percent slopes

This very deep, gently sloping, somewhat poorly drained soil formed in glacial till which has a dense lower subsoil and substratum. It is at the base of hills and on till plains in glaciated uplands. Individual areas range mainly from 5 to 30 acres and are oval or rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, very dark grayish brown silt loam

Subsoil:
9 to 16 inches, light olive brown loam
16 to 47 inches, mottled olive gravelly fine sandy loam

Substratum:
47 to 72 inches, olive brown gravelly fine sandy loam

Included with this soil in mapping are small areas of moderately well drained Broadalbin soils, and poorly drained or very poorly drained Sun soils in low areas and at the base of slopes. Also included are areas of Sutton soils which have a friable substratum, and Manlius soils which are 20 to 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: moderate in the surface and upper subsoil layers, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): low
Soil reaction: strongly acid to slightly acid in the surface layer and upper subsoil, strongly acid to neutral in the lower subsoil and moderately acid to slightly alkaline in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: .5 to 1.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, or are idle and reverting to woodland.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is very limited for camp areas and playgrounds because of the depth to saturated zone. Playgrounds are very limited because of the slope. Campsites, picnic areas, playgrounds and golf fairways are also very limited because of the depth to the cemented pan causing restricted permeability. The addition of fill material and improved drainage will be needed in most areas if this map unit is used for recreational purposes. A higher, drier site should be considered for these uses.

Woodland

The potential productivity for sugar maple is moderate. This map unit is moderately suited for log landings and natural road surfaces because of wetness, the slope, and the relatively low soil strength in the upper soil profile. Improved drainage, leveling or additional fill material may be needed in some areas of this unit. There is a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include white spruce, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to the saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to cemented pan (or restricted permeability), and depth to a saturated zone. Selecting sites that have a more permeable, well drained soil in nearby areas may reduce these limitations.

The capability subclass is 3w.

MxB—Mosherville-Hornell complex, undulating

This unit consists of very deep, somewhat poorly drained Mosherville soils and moderately deep, somewhat poorly drained Hornell soils. Slopes range from 3 to 8 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Individual areas range mainly from 5 to 30 acres and are oval or irregular shaped.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Mosherville soils, 40 percent Hornell soils, and 10 percent other soils.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Mosherville soils

Surface layer:
0 to 9 inches, very dark grayish brown silt loam

Subsoil:
9 to 16 inches, light olive brown loam
16 to 47 inches, mottled olive gravelly fine sandy loam

Substratum:
47 to 72 inches, olive brown gravelly fine sandy loam

Hornell soils

Surface layer:
0 to 6 inches, dark grayish brown channery silt loam

Subsoil:
6 to 17 inches, mottled, strong brown channery silty clay loam
17 to 24 inches, mottled, strong brown very channery silty clay loam

Bedrock:
24 inches, dark gray shale bedrock

Included with this soil in mapping are small areas of moderately well drained Broadalbin soils, poorly drained Allis soils, and very poorly drained Sun soils. Also included are areas of Sutton soils, which have a friable substratum, and Manlius soils, which are well drained, and 20 to 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 10 percent of the unit.

Soil Properties

Mosherville soils

Permeability: moderate in the surface and upper subsoil layers, slow in the lower subsoil and substratum
Available water capacity (average for 40-inch profile): low
Soil reaction: strongly acid to slightly acid in the surface layer and upper subsoil, strongly acid to neutral in the lower subsoil, and moderately acid to slightly alkaline in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: .5 to 1.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Hornell soils

Permeability: moderate in the surface, and slow or very slow in the subsoil and substratum
Available water capacity (average for 40-inch profile): low to moderate
Soil reaction: extremely acid to strongly acid in the surface layer and very strongly acid or strongly acid in the subsoil and substratum
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: .5 to 1.5 feet at some time during November through May
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Use and Suitability

Most areas of this complex are used for agriculture. Some areas are in woodlots, or are idle and reverting to woodland.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, crop selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. Areas of Hornell soils may be more expensive to drain because of the depth to bedrock. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is very limited for most recreational uses because of the depth to the saturated zone. Campsites, picnic areas, playgrounds, and golf fairways are also very limited because of the depth to the cemented pan which causing restricted permeability. In the Hornell part of this unit, playground use is very limited by the amount of surface rock fragments. The addition of gravel-free fill material and improved drainage will be needed in most areas of this map unit to make these uses functional. A higher, drier site should be considered for these uses.

Woodland

The potential productivity for sugar maple is moderate. This map unit is moderately suited for log landings and natural road surfaces because of wetness, slope, and relatively low soil strength in the upper soil profile. Improved drainage, leveling or additional fill material may be needed in some areas of this unit. There is a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include white spruce, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. In the Hornell part of this unit, this use is also somewhat limited by depth to bedrock and the shrink-swell potential. Selecting sites in very deep, better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to cemented pan in the Mosherville part, depth to a saturated zone, and depth to bedrock in the Hornell part. Selecting sites that have a very deep, more permeable, well drained soil in nearby areas should be considered.

The capability subclass is 3w.

NaC—Nassau-Rock outcrop complex, rolling

This unit consists of shallow, somewhat excessively drained Nassau soils, and areas of rock outcrop. Slopes range from 8 to 15 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly rectangular and range from 10 to 50 acres.

The soils and rock outcrop in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 60 percent Nassau soils, 20 percent rock outcrop, and 20 percent other soils.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Rock outcrop:
Areas of exposed, folded and broken soft shale bedrock

Included with this unit in mapping are small areas of moderately deep, well drained Manlius soils, and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 20 percent of the map unit.

Soil Properties

Nassau soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid or strongly acid throughout the soil
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Few areas of this map unit are used for agriculture. Most areas are idle or wooded, or are used as pasture.

Cropland

This map unit is poorly suited to cultivated crops. The shale fragments in the soil, and areas of exposed bedrock and very shallow soil interfere with tillage. This map unit is also very droughty during the summer. The use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion, improve soil moisture, and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. Improvement of pasture is difficult because of the slope, droughtiness, and areas of rock outcrop. Proper stocking rates and timely deferment of grazing, to allow for regrowth of forage, will help increase forage yields.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of the depth to bedrock. Playground use is also very limited by high rock fragment content and rolling slope. Golf fairways tend to be too droughty. Deeper, less sloping nearby areas should be considered for these uses. Gravel-free fill topsoil will improve conditions for these uses. A significant amount of quality fill material and leveling may be necessary to provide playground use.

Woodland

Potential productivity for sugar maple is moderate. This map unit has a severe limitation for the construction of roads and landings because of shallow bedrock. This unit is moderately suited to log landings and natural road surfaces because of the rolling slope. Some land leveling may be difficult to achieve because of the shallow soil, reducing efficiency in processing logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock. Excavation may be difficult for machinery and necessitate blasting. Placing the building in the deeper nearby areas may save on site preparation costs.

Septic Tank Absorption Fields

This map unit is very limited by the depth to bedrock. Conventional systems may fail to treat effluent properly, and threaten groundwater quality. Alternate sites in nearby deeper, well drained areas may work more effectively at lower cost.

The capability subclass for Nassau is 4e, and for Rock outcrop is 8.

NaD—Nassau-Rock outcrop complex, hilly

This unit consists of shallow, somewhat excessively drained Nassau soils, and areas of rock outcrop. Slopes range from 15 to 25 percent. The surface topography is often irregular and sloping in many directions because of the underlying folded and tilted shale or slate bedrock. Areas are mainly rectangular and range from 10 to 40 acres.

The soils and rock outcrop in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 60 percent Nassau soils, 20 percent rock outcrop, and 20 percent other soils.

The typical sequence, depth, and composition of the layers of these soils are as follows—

Nassau soils

Surface layer:
0 to 3 inches, very dark grayish brown channery silt loam

Subsoil:
3 to 18 inches, yellowish brown very channery silt loam
18 inches, soft shale bedrock

Rock outcrop:
Areas of exposed, folded and broken soft shale bedrock

Included with this unit in mapping are small areas of moderately deep, well drained to excessively drained Manlius soils, and areas of soil less than 10 inches deep. Included areas are up to 5 acres and make up about 20 percent of the map unit.

Soil Properties

Nassau soils

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): very low
Soil reaction: very strongly acid or strongly acid throughout the soil.

Surface runoff: rapid
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and suitability

Few areas of this soil complex are used for agriculture. Most areas are idle or wooded, or are used as pasture.

Cropland

The soils in this map unit are not suited to cultivated crops because of the slope, erosion hazard, very low available water capacity and intermingled areas of rock outcrop. Use of sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is poorly suited to pasture. Proper stocking rates and timely deferment of grazing to allow for regrowth of forage will help increase forage yields as well as soil moisture, and reduce the hazard of erosion. Improvement of pasture is difficult because of slope and areas of rock outcrop.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of the depth to bedrock and its hilly slope. Playground use is also very limited by the high rock fragment content. Golf fairways tend to be very droughty because of shallow soil. Deeper, less sloping nearby areas should be considered, especially for playground development. Adding gravel-free topsoil may improve conditions for some of these uses.

Woodland

Potential productivity for sugar maple is moderate. This map unit is poorly suited for log landings and natural road surfaces because of its hilly slope. This map unit has a severe limitation for the construction of roads and landings because of the shallow bedrock. Establishing log landings on nearly level, deeper soils may provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of the slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock and its hilly slope. Excavation may be difficult for machinery and necessitate blasting. Placing the building in the deeper, less sloping nearby areas may save on site preparation costs.

Septic Tank Absorption Fields

This map unit is very limited by the depth to bedrock and its hilly. Conventional systems may fail to treat effluent properly, and threaten groundwater quality. Selecting alternate sites is recommended. Alternate sites in nearby deeper, well drained areas may work more effectively at lower cost.

The capability subclass for Nassau is 6e, and for Rock outcrop is 8.

Ne—Newstead loam

This moderately deep, nearly level, somewhat poorly drained soil formed in glacial till. It is on bedrock controlled uplands. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 15 acres and are oval or rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 5 inches, very dark grayish brown loam

Subsoil:
5 to 11 inches, mottled, dark brown sandy loam
11 to 21 inches, mottled, dark brown gravelly loam

Substratum:
21 to 23 inches, mottled, dark brown gravelly silt loam

Bedrock:
23 inches, brown limestone bedrock

Included with this soil in mapping are small areas of moderately well drained Galway soils and very deep Massena soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): low
Soil reaction: moderately acid to slightly alkaline in the surface; slightly acid to moderately alkaline in the subsoil; and neutral to moderately alkaline in the substratum

Surface runoff: slow
Erosion hazard: slight
Depth to water table: .5 to 1.0 feet occasionally during November through May
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Use and Suitability

Many areas of this map unit are used for agriculture. Some areas are in woodlots or are reverting to woodland after having been cleared (fig. 8). This map unit is considered prime farmland when adequately drained.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate, and the moderately deep bedrock may cost more to excavate than nearby deeper soils. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This soil is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth

Figure 8.—Areas of Newstead soil, which are moderately deep to limestone bedrock are well suited as wildlife management areas. Although the soil is somewhat poorly drained, development of ponds is limited by depth to bedrock.

and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is very limited for many recreational uses because of the depth to saturated zone. Higher, better-drained areas should be considered for these uses. The addition of fill material or adequate drainage will greatly improve conditions for these uses.

Woodland

The potential productivity for eastern white pine is high. This map unit is generally poorly suited for log landings and natural road surfaces because of seasonal wetness. Improved drainage and the addition of fill material may be needed in most areas of this unit. Higher, more-convex positions should be considered. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include eastern white pine and white spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock and the depth to a saturated zone. Deeper, well drained nearby sites should be considered. Tile drains around foundation footings and sloping the land away from buildings may help to reduce wetness. Additional fill may be needed to landscape around basement walls.

Septic Tank Absorption Fields

This map unit is very limited by depth to bedrock and depth to saturated zone. Conventional systems may fail to treat effluent properly, and threaten groundwater quality. Alternate sites in nearby deeper, well drained areas may work more effectively at lower cost.

The capability subclass is 3w.

NuB—Nunda silt loam, 3 to 8 percent slopes

This very deep, gently sloping, moderately well drained soil formed in a silty mantle and the underlying glacial till. It is on the tops and sides of hills on till plains. Individual areas range mainly from 5 to 50 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 8 inches, very dark grayish brown silt loam

Subsoil:
8 to 13 inches, dark grayish brown silt loam
13 to 17 inches, mottled, dark brown and light olive brown silty clay loam
17 to 21 inches, mottled, light olive brown channery silty clay loam
21 to 32 inches, mottled, dark grayish brown and very dark grayish brown channery silty clay loam

Substratum:
32 to 72 inches, mottled, olive brown to very dark grayish brown channery silt loam

Included with this soil in mapping are small areas of somewhat poorly drained Burdett soils in depressions. Also included are areas of Manlius soils which are 20 to 40 inches deep to bedrock. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate in the surface and upper subsoil, moderately slow in the lower subsoil, and slow to very slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to neutral in the surface and upper subsoil, moderately acid to neutral in the lower subsoil, and slightly acid to slightly alkaline in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 2 feet at some time during March through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and the destruction of sod cover.

Recreation

This map unit is very limited for playground use because of slope. This unit is somewhat limited for many recreational uses because of the depth to the saturated zone. Campsites, picnic areas, and playgrounds are also somewhat limited because of restricted permeability in the lower subsoil and substratum. Grading and smoothing of slopes will be needed in most areas of this unit for playground development. The addition of fill material or subsurface drainage will improve conditions for recreational use.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited to log landings and natural road surfaces because of slope, seasonal wetness, and relatively low soil strength within the upper soil profile. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include Norway spruce, white spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to the saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in the lower subsoil and substratum, and the depth to the saturated zone (especially in the spring). Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 2e.

NuC—Nunda silt loam, 8 to 15 percent slopes

This very deep, strongly sloping, moderately well drained soil formed in a silty mantle and the underlying glacial till. It is on the sides of hills on till plains. Individual areas range mainly from 5 to 40 acres and are crescent shaped or rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 8 inches, very dark grayish brown silt loam.

Subsoil:
8 to 13 inches, dark grayish brown silt loam
13 to 17 inches, mottled, dark brown and light olive brown silty clay loam
17 to 21 inches, mottled, light olive brown channery silty clay loam
21 to 32 inches, mottled, dark grayish brown and very dark grayish brown channery silty clay loam

Substratum:
32 to 72 inches, mottled, olive brown to very dark grayish brown channery silt loam

Included with this soil in mapping are small areas of somewhat poorly drained Burdett soils in depressions. Also included are Manlius soils which are 20 to 40 inches deep to bedrock, and areas of soils which have more clay in the subsoil. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the surface and upper subsoil, moderately slow in the lower subsoil, and slow or very slow in the substratum.
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to neutral in the surface and upper subsoil, moderately acid to neutral in the lower subsoil, and slightly acid to slightly alkaline in the substratum.
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: 1.5 to 2 feet at some time during March through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this map unit erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to the saturated zone and the slope. Playgrounds are very limited because of the excessive slope. Campsites, picnic areas, and playgrounds are also somewhat limited because of the restricted permeability in the substratum. Adding fill material or subsurface drainage will improve conditions for these recreational uses. Some additional grading and smoothing will be needed, particularly for playground use. Paths and trails may be affected by water erosion concerns. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited to log landings and natural road surfaces because of the slope, seasonal wetness, and relatively low soil strength within the upper soil profile. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include Norway spruce, white spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to the saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and diverting water away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in the lower subsoil and substratum, and the depth to saturated zone (especially in the spring). Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered. The capability subclass is 3e.

OaA—Oakville loamy fine sand, nearly level

This very deep, predominantly moderately well drained, but ranging to well drained soil formed in water sorted sand. It is on glacial outwash plains, lake plains, and beach ridges. Slopes range from 0 to 3 percent. Individual areas range mainly from 10 to 30 acres and are oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 7 inches, dark yellowish brown loamy fine sand

Subsoil:
7 to 13 inches, yellowish brown loamy fine sand
13 to 31 inches, brownish yellow loamy fine sand
31 to 37 inches, mottled yellowish brown loamy fine sand

Substratum:
37 to 60 inches, yellowish brown loamy fine sand with bands of very dark grayish brown and brown fine sandy loam
60 to 90 inches, dark yellowish brown loamy fine sand

Included with this soil in mapping are small areas of somewhat poorly drained Wareham soils. Also included are areas of Windsor and Deerfield soils, which have more medium sized sand in the subsoil. Some areas of this map unit have thin subsoil layers because of historic mining for molding sand. This unit may have layers of loamy or clayey materials below 40 inches. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low or moderate
Soil reaction: very strongly acid to neutral in the surface and subsoil, and moderately acid to neutral in the substratum
Surface runoff: very slow
Erosion hazard: slight
Depth to water table: 3 to 6 feet at some time during November through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Many areas of this prime farmland soil are used for agriculture, while an increasingly large area is being used for suburban development (fig. 9). Some areas are used as orchards or small woodlots.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. The seasonal high water table can cause soft ground conditions under heavy farm equipment. Subsurface drainage can improve soil conditions for planting. Using cover crops or sod-forming crops, and returning crop residues to the soil can promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during rainy periods will protect soil tilth and maintain sod cover.

Recreation

This map unit is somewhat limited for most recreational uses because of high sand content. This unit is somewhat limited for golf fairways because of the droughty soil conditions. An addition of loamy topsoil will improve vegetative growth and the soil's ability to withstand pedestrian traffic.

Woodland

The potential productivity for white oak is moderately high. This map unit has no major management limitations. Trees to manage include red pine and eastern white pine.

Dwellings with basements

This map unit is somewhat limited for dwellings with basements because of seasonal wetness or the depth to the saturated zone. Tile drains around foundation

Figure 9.—Changing land use is apparent in this area of Oakville loamy fine sand, nearly level. As prime farmland, it also has the characteristics which make it attractive for suburban development.

footings and protective coatings on basement walls may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and the depth to the saturated zone (mainly in the spring). Inadequate filtering by the soil above the saturated zone may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 2w.

OaB—Oakville loamy fine sand, undulating

This very deep, well drained soil formed in water-sorted sand. It is on glacial outwash plains, lake plains, and beach ridges. Slope ranges from 3 to 8 percent, and is complex. Individual areas range mainly from 10 to 40 acres and are oval or irregularly shaped.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 7 inches, dark yellowish brown loamy fine sand

Subsoil:
7 to 13 inches, yellowish brown loamy fine sand
13 to 31 inches, brownish yellow loamy fine sand
31 to 37 inches, mottled yellowish brown loamy fine sand

Substratum:
37 to 60 inches, yellowish brown loamy fine sand with bands of very dark grayish brown and brown fine sandy loam
60 to 90 inches, dark yellowish brown loamy fine sand

Included with this soil in mapping are small areas of somewhat poorly drained Wareham soils. Also included are areas of Windsor and Deerfield soils, which have more medium sized sand in the subsoil. Some areas of this map unit have thin subsoil layers because of historic mining for molding sand. This unit may have layers of loamy or clayey materials below 40 inches. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low to moderate
Soil reaction: very strongly acid to neutral in the surface and subsoil, and moderately acid to neutral in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Many areas of this map unit are used for agriculture, while an increasingly large area is being used for suburban development. Some areas are in orchards or small woodlots.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay and some fruits and vegetables. However, low available water capacity may reduce yields significantly. Using cover crops or sod-forming crops, and returning crop residues to the soil help to improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can allow for regrowth after dry periods. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is somewhat limited for most recreational uses because of the high sand content in the soil. This unit is somewhat limited for golf fairways by droughty soil conditions. An addition of loamy topsoil will improve vegetative growth and the soil's ability to withstand pedestrian traffic.

Woodland

The potential productivity for white oak is moderately high. This map unit is moderately suited to log landings, natural road surfaces and mechanical planting because of the slope. Some land leveling may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and eastern white pine.

Dwellings with basements

This map unit is not limited for use as a site for dwellings. Areas of disturbed soil should be protected with plant cover during construction to reduce erosion.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering of the soil may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of the effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3s.

OaC—Oakville loamy fine sand, rolling

This very deep, well drained soil formed in water-sorted sand. It is on glacial outwash plains, lake plains, and beach ridges. Slopes range from 8 to 15 percent, and is complex. Individual areas range mainly from 10 to 40 acres and are oval or irregularly shaped.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 7 inches, dark yellowish brown loamy fine sand

Subsoil:
7 to 13 inches, yellowish brown loamy fine sand
13 to 31 inches, brownish yellow loamy fine sand
31 to 37 inches, mottled yellowish brown loamy fine sand

Substratum:
37 to 60 inches, yellowish brown loamy fine sand with bands of very dark grayish brown and brown fine sandy loam
60 to 90 inches, dark yellowish brown loamy fine sand

Included with this soil in mapping are small areas of somewhat poorly drained Wareham soils. Also included are areas of Windsor and Deerfield soils, which have more medium sized sand in the subsoil. This unit may have layers of loamy or clayey materials below 40 inches. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low to moderate
Soil reaction: very strongly acid to neutral in the surface and subsoil, and moderately acid to neutral in the substratum
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Some areas of this map unit are used for agriculture, while an increasingly large area is being used for suburban development. Some areas are in orchards or small woodlots.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this map unit erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion, improve available water capacity, and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of the slope. This unit is somewhat limited for most recreational uses because of the high sand content in the soil. Also, it is somewhat limited for golf fairways by droughty soil conditions. A significant amount of grading and smoothing for playground sites will be needed in most areas of this map unit. Adding a loamy topsoil will improve vegetative growth and the soil's ability to withstand pedestrian traffic.

Woodland

The potential productivity for white oak is moderately high. This map unit is moderately suited to log landings, natural road surfaces, and mechanical planting because of slope. Some land leveling may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and eastern white pine.

Dwellings with basements

This map unit is somewhat limited for dwellings with basements because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control. Areas of disturbed soil should be protected with plant cover during construction to reduce erosion.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering of the soil may result in the pollution of the groundwater. Alternative septic system designs should be considered to insure adequate treatment of the effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3e.

OaD—Oakville loamy fine sand, hilly

This very deep, well drained soil formed in water-sorted sand. It is on glacial outwash plains, lake plains, and beach ridges. Slopes range from 15 to 25 percent, and is complex. Individual areas range mainly from 10 to 50 acres and are oval or irregularly shaped.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 7 inches, dark yellowish brown loamy fine sand

Subsoil:
7 to 13 inches, yellowish brown loamy fine sand
13 to 31 inches, brownish yellow loamy fine sand
31 to 37 inches, mottled yellowish brown loamy fine sand

Substratum:
37 to 60 inches, yellowish brown loamy fine sand with bands of very dark grayish brown and brown fine sandy loam
60 to 90 inches, dark yellowish brown loamy fine sand

Included with this soil in mapping are small areas of somewhat poorly drained Wareham soils. Also included are areas of Windsor and Deerfield soils, which have more medium sized sand in the subsoil. This unit may have layers of loamy or clayey materials below 40 inches. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low to moderate
Soil reaction: very strongly acid to neutral in the surface and subsoil, and moderately acid to neutral in the substratum
Surface runoff: rapid
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Some areas of this map unit are used for pasture or orchards. Most areas are in woodlots.

Cropland

The soils in this map unit are poorly suited to cultivated crops. On long, poorly vegetated slopes, these soils erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion, improve available water capacity, and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. If overgrazing occurs, erosion can be a hazard because of slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

Most recreational uses are very limited because of the hilly slope. Extensive grading and smoothing will be needed in most areas of this map unit, especially for playgrounds. Alternative sites should be considered.

Woodland

The potential productivity for white oak is moderately high. This map unit is poorly suited for log landings, natural road surfaces, and mechanical planting because of slope. Establishing log landings on nearly level or gently sloping areas will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include red pine and eastern white pine.

Dwellings with basements

This map unit is very limited for dwellings with basements because of its hilly slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and the hilly slope. Inadequate filtering by the soil may result in pollution of the groundwater. Alternative septic system designs should be considered to insure adequate treatment of the effluent. Selecting sites with moderately rapid permeability on less sloping nearby areas may reduce this limitation.

The capability subclass is 4e.

OeE—Oakville and Windsor soils, 25 to 35 percent slopes

These very deep, well drained to excessively drained soils formed in water-sorted sand. The soils are on steep eroded sides of gullies in glacial outwash plains, lake plains, and beach ridges. Individual areas range mainly from 10 to 80 acres and are long, narrow, and irregularly shaped.

This unit is about 40 percent Oakville soils, 40 percent Windsor soils, and 20 percent other soils. The Oakville and Windsor soils were mapped together because their use and management are the same. Some areas are mostly Oakville soils, some are mostly Windsor soils, and many contain both kinds of soils.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Oakville soils

Surface layer:
0 to 7 inches, dark yellowish brown loamy fine sand

Subsoil:
7 to 13 inches, yellowish brown loamy fine sand
13 to 31 inches, brownish yellow loamy fine sand
31 to 37 inches, mottled yellowish brown loamy fine sand

Substratum:
37 to 60 inches, yellowish brown loamy fine sand with bands of very dark grayish brown and brown fine sandy loam
60 to 90 inches, dark yellowish brown loamy fine sand

Windsor soils

Surface layer:
0 to 2 inches, moderately decomposed pine needles
2 to 11 inches, very dark grayish brown loamy sand

Subsoil:
11 to 21 inches, yellowish brown loamy sand
21 to 25 inches, yellowish brown sand

Substratum:
25 to 72 inches, light yellowish brown sand

Included with this soil in mapping are small areas of gravelly Hoosic or Hinckley soils. Also included are areas where the subsoil or substratum is exposed at the surface because of erosion. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Oakville soils

Permeability: rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low to moderate
Soil reaction: very strongly acid to neutral in the surface and subsoil, and moderately acid to neutral in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Windsor soils

Permeability: rapid or very rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): low to moderate
Soil reaction: very strongly acid to moderately acid in the surface and subsoil; very strongly acid to slightly acid in the substratum
Surface runoff: moderate
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are wooded. Some areas are used as pasture.

Cropland

This map unit is not suited to cultivated crops because of slope, low natural fertility, and droughtiness of the soil. On areas bare of plant cover erosion is a hazard. Use of sod forming crops help to reduce erosion, increase moisture holding capacity, and promote good soil tilth.

Pasture

This map unit is poorly suited to pasture. Proper stocking rates and timely deferment of grazing will help to maintain forage during dry periods and reduce the risk of erosion.

Recreation

Most recreational uses are very limited because of the steep slope. Alternative sites should be considered for recreational use. Otherwise, extensive grading and smoothing will be needed in most areas of this unit.

Woodland

The potential productivity for white oak is moderately high. This map unit is poorly suited for log landings and natural road surfaces because of steep slope. This unit is not suited for mechanical planting because of the slope. Establishing log landings on gently sloping areas will provide for a more efficient operation. Also, erosion is a severe hazard on roads and trails because of the slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be routed around this unit or designed to follow the slope contour, where possible. Trees to manage include red pine and eastern white pine.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the steep slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and the steep slope. Inadequate filtering by soil may result in pollution of the groundwater. Selecting sites with moderately rapid permeability on gently sloping, nearby areas may reduce this limitation. Alternative septic system designs should be considered to insure adequate treatment of effluent.

The capability subclass is 7s.

Pm—Palms muck

This very deep, nearly level, very poorly drained soil formed in deposits of organic materials that are 16 to 51 inches thick over mineral soil material. It is in broad, depressional or basin-like swamps and bogs in the glaciated uplands, lake plains or outwash plains. This map unit receives runoff from adjoining areas, and remains ponded from late fall until late spring. Individual areas are 5 to 40 acres in size and are broad and oval or rectangular in shape. Small perennial streams either bisect or run along the edge of this map unit. Slopes are less than 2 percent.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 11 inches, black muck

Subsurface layer:
11 to 28 inches, very dark gray muck

Substratum:
28 to 31 inches, mottled greenish gray silt loam
31 to 42 inches, mottled dark gray fine sandy loam
42 to 72 inches, grayish brown loamy very fine sand

Included in mapping, particularly near Ballston Lake, are small areas of deep organic soils, usually near the center of large areas of the unit; and small areas of organic material that is not as well decomposed as Palms. Also included are areas of clayey Madalin or sandy Scarboro soils and recently deposited Fluvaquents on floodplains. Included areas range up to 5 acres in size and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately rapid through moderately slow in the organic layers; moderate or moderately slow in the underlying mineral layers
Available water capacity (average for 40-inch profile): very high
Soil reaction: strongly acid to slightly alkaline in the organic material, and slightly acid to moderately alkaline in the mineral material
Surface runoff: very slow or ponded
Erosion hazard: none by water erosion, but can erode by wind when the soil is dry
Depth to water table: 1 foot above to 1 foot below the surface during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are covered with water-tolerant grasses, shrubs, and small trees.

Cropland

This map unit is not suited to cultivated crops. Unless the soil is drained, the seasonal high water table interferes with cultivation. However, many areas of this map unit are considered to be valuable wetland habitat.

Pasture

This map unit is poorly suited to pasture because of the high water table, soft ground conditions, and lack of suitable plants for forage.

Recreation

This map unit is very limited for most recreational uses because of depth to the saturated zone and ponding. This unit is very limited for golf fairways because of high organic matter content. Higher, better-drained areas should be considered for these uses. This unit may be a valuable wetland habitat.

Woodland

The potential productivity for growing red maple is low. This map unit is poorly suited for log landings and natural road surfaces because of ponding. A higher position on the landscape should be considered for log landings as well as other operations. There is also a high potential for seedling mortality because of wetness and the extremely acid soil reaction. Only species that are wetness-tolerant, such as tamarack, should be selected for this site.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness, ponding, and subsidence. The included soils also have limitations for dwellings. Nearby mineral soils that are higher in the landscape and better drained, such as Oakville and Charlton soils, are more suitable for dwellings.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability, ponding, the depth to saturated zone, and subsidence. The common inclusions in the unit also have limitations. Soils on adjacent uplands may have lesser limitations for septic tank absorption fields.

The capability subclass is 5w.

Pp—Palms muck, ponded

This very deep, very poorly drained soil formed in deposits of organic materials that are 16 to 51 inches thick over mineral soil material. It is in level areas or depressions often bordering streams, lakes, ponds and other open bodies of water. These areas are covered by 1 to 3 feet of water during most of the year and are commonly called fresh water marsh. Most areas are oblong and range from 3 to 50 acres. Slopes are less than 1 percent.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 11 inches, black muck

Subsurface layer:
11 to 28 inches, very dark gray muck

Substratum:
28 to 31 inches, mottled greenish gray silt loam
31 to 42 inches, mottled dark gray fine sandy loam
42 to 72 inches, grayish brown loamy very fine sand

Included with this soil in mapping are areas of poorly drained and very poorly drained mineral soils such as Sun, Raynham, or Madalin which are on slightly higher parts of the landscape. Included areas are up to 5 acres and make up about 15 percent of the unit.

Soil Properties

Permeability: moderately rapid to moderately slow in the organic layers, moderate or moderately slow in the underlying mineral layers
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to slightly alkaline in the organic material, and slightly acid to moderately alkaline in the mineral material
Surface runoff: ponded
Erosion hazard: none by water erosion, but can erode by wind when the soil is dry
Depth to water table: 1 to 3 feet above the surface during most of the year
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil are covered with water most of the year, with water tolerant grasses, shrubs and small trees growing on high knolls.

Cropland

This map unit is not suited for use as cropland because of water covering the surface.

Pasture

This map unit is not suited for use as pasture because of the high water table, soft ground conditions, and lack of suitable plants for forage.

Recreation

This map unit is very limited for most recreational uses because of the depth to saturated zone and ponding. This unit is very limited for golf fairways because of high organic matter content. Higher, better-drained areas should be considered for these uses. This unit may be a valuable wetland habitat.

Woodland

The potential productivity for growing red maple is low. This map unit is poorly suited for log landings and natural road surfaces because of ponding. This unit is not suited to mechanical planting because of wetness. A higher position on the landscape should be considered for log landings as well as other harvesting operations. There is also a high potential for seedling mortality because of wetness and extremely acid soil reaction. Only species that are wetness-tolerant, such as tamarack, should be selected for this site.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness, ponding, and subsidence. The included soils also have limitations for dwellings. Nearby mineral soils that are higher on the landscape and better drained, such as Oakville and Charlton, are more suitable for dwellings.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability, ponding, the depth to saturated zone, and subsidence. The common inclusions in the unit also have limitations. Soils on adjacent uplands may have lesser limitations for septic tank absorption fields.

The capability subclass is 8.

PtB—Paxton gravelly sandy loam, 3 to 8 percent slopes

This very deep, gently sloping, well drained soil formed in compact glacial till. It is on smooth till plains in the uplands. Individual areas range mainly from 5 to 20 acres and are rectangular or oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 7 inches, dark brown gravelly sandy loam

Subsoil:
7 to 16 inches, dark yellowish brown gravelly sandy loam
16 to 31 inches, yellowish brown gravelly sandy loam

Substratum:
31 to 72 inches, olive brown, gravelly fine sandy loam

Included with this soil in mapping are small areas of moderately well drained Woodbridge soils in depressions and along drainageways. Also included are areas of Charlton soils, which do not have a firm, compact substratum, and areas where the dense substratum is deeper than 40 inches. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the surface and subsoil, and slow or very slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout the soil
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 2.5 feet at some time during February through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is very limited for playgrounds because of high gravel content in the soil surface and slope. After leveling an area, gravel-free topsoil placed in playground areas will improve conditions for this use.

Woodland

The potential productivity for northern red oak is moderate. This map unit is moderately suited to log landings, natural road surfaces and mechanical planting because of slope. Some land leveling may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to a thin, saturated zone above the dense substratum. Tile drains around foundation footings and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a thin saturated zone above the denser substratum, particularly in the spring, and is also somewhat limited by restricted permeability in the substratum. Alternative septic system designs that properly filter effluent above the substratum and drainage to intercept seepage should be considered. Conventional systems will function better within included areas of Charlton soils.

The capability subclass is 2e.

PtC—Paxton gravelly sandy loam, 8 to 15 percent slopes

This very deep, strongly sloping, well drained soil formed in compact glacial till. It is on hillsides on upland till plains. Individual areas range mainly from 10 to 30 acres and are rectangular or oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 7 inches, dark brown gravelly sandy loam

Subsoil:
7 to 16 inches, dark yellowish brown gravelly sandy loam
16 to 31 inches, yellowish brown gravelly sandy loam

Substratum:
31 to 72 inches, olive brown, gravelly fine sandy loam

Included with this soil in mapping are small areas of moderately well drained Woodbridge soils in depressions and along drainageways. Also included are areas of Charlton soils, which do not have a firm, compact substratum, and areas where the dense substratum is deeper than 40 inches. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the surface and subsoil, and slow or very slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid throughout the soil
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: 1.5 to 2.5 feet at some time during February through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of slope and the high gravel content in the soil surface. Significant leveling and smoothing with a mantle of gravel-free topsoil in playground areas will improve conditions for this use.

Woodland

The potential productivity for northern red oak is moderate. This map unit is moderately suited to log landings, natural road surfaces, and mechanical planting because of slope. Some land leveling may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine, Norway spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to a thin, saturated zone above the dense substratum. Tile drains around foundation footings and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a thin saturated zone above the denser substratum, particularly in the spring, and is also somewhat limited by slope and the restricted permeability in the substratum. Alternative septic system designs that properly filter effluent above the substratum and drainage to intercept seepage should be considered. Conventional systems will function better within included areas of gently sloping Charlton soils.

The capability subclass is 3e.

Pu—Pits, quarry

This unit consists of areas that have been excavated and mined to remove crushed stone of varying size as needed for construction, road building, or soil amendment materials. The areas are blocky in shape and range from 3 to 100 acres. Many of the pits have short steep slopes along the edges.

Included with this unit in mapping are small areas of undisturbed soils. These soils include well drained Farmington and Galway soils in the central and western parts of the county, and Nassau and Manlius soils in the eastern and southern parts. Also included are areas of water, especially in abandoned pits. Areas of inclusions are up to 5 acres and make up about 20 percent of the unit.

A few reclaimed pits are used for community development. On-site investigations are needed to determine the suitability for most uses.

A capability subclass is not assigned.

Pv—Pits, sand and gravel

This unit consists of areas that have been excavated for sand and gravel to be used for construction.

The areas are irregular in shape and are from 5 to 30 acres. Many of the pits have short steep slopes along the edges.

Included with this unit in mapping are small areas of undisturbed soils. These soils include sandy Windsor and Oakville soils and gravelly Hoosic and Hinckley soils. Also included are areas of soil consisting of sandy or gravelly overburden areas of exposed bedrock, and a few small ponds. Areas of inclusions are up to 5 acres and make up about 20 percent of the unit.

The rate of water movement through the material (permeability) is rapid or very rapid. In some areas, the water table is at or near the surface most of the year.

Pits actively being mined have no vegetative cover. Older abandoned pits have some drought tolerant grass and shrubs growing on them. Pits that are no longer mined can be smoothed, vegetated, and reclaimed to prevent erosion, and depending on slope and depth to the seasonal water table, may have other uses.

Most areas, either abandoned or reclaimed, provide habitat for wildlife. The potential for timber is low because of droughtiness. Windthrow and seedling mortality rates are high.

Sand and gravel pits, even when reclaimed, have variable suitability for community development and recreation. Determination of the suitability of reclaimed pits for most uses is best made by on-site investigation.

A capability subclass is not assigned.

PwA—Pittstown silt loam, 0 to 3 percent slopes

This very deep, nearly level, moderately well drained soil formed in glacial till which has a dense substratum. It is on the top and at the base of hills in glacially modified uplands. Individual areas range mainly from 5 to 30 acres and are oval or rectangular.

The typical sequence, depth, and composition of the layers of this soil are as follows—

Surface layer:
0 to 11 inches, very dark grayish brown silt loam

Subsoil:
11 to 15 inches, mottled brown and yellowish brown gravelly silt loam
15 to 23 inches, mottled olive brown gravelly loam

Substratum:
23 to 72 inches, mottled yellowish brown and light olive brown gravelly loam

Included with this soil in mapping are small areas of well drained Bernardston soils and moderately deep Manlius soils. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate in the surface and subsoil, and moderately slow or slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid above 30 inches, and very strongly acid to slightly acid below 30 inches
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 1.5 to 2.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. The seasonal high water table can cause soft ground conditions under heavy farm equipment. Subsurface drainage can improve soil conditions for planting. The use of cover crops or sod-forming crops, and return of crop residues to the soil help to promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing in the spring and during other wet periods will protect soil tilth and maintain sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to the saturated zone. The addition of fill material or adequate drainage will greatly improve conditions for these uses.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited to log landings and natural road surfaces because of seasonal wetness and relatively low soil strength within the upper soil profile. This unit is moderately suited for mechanical planting because of surface rock fragments, which may interfere with the operation. Additional fill material and possibly drainage may be necessary to build roads and efficiently process logs. Trees to manage include balsam fir, white spruce, and eastern white pine.

Dwellings with basements

This map unit is very limited for dwellings with basements because of seasonal wetness or depth to the saturated zone. Selecting sites in well drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a saturated zone above the denser substratum, particularly in the spring. Alternative septic system designs that properly filter effluent above the substratum, and drainage to intercept seepage should be considered.

The capability subclass is 2w.

PwB—Pittstown silt loam, 3 to 8 percent slopes

This very deep, gently sloping, moderately well drained soil formed in glacial till which has a dense substratum. It is on the top and sides of hills in glacially modified uplands. Individual areas range mainly from 5 to 30 acres and are oval or rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 11 inches, very dark grayish brown silt loam

Subsoil:
11 to 15 inches, mottled brown and yellowish brown gravelly silt loam
15 to 23 inches, mottled olive brown gravelly loam

Substratum:
23 to 72 inches, mottled yellowish brown and light olive brown gravelly loam

Included with this soil in mapping are small areas of well drained Bernardston soils and moderately deep Manlius soils. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate in the surface and subsoil, and moderately slow or slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to moderately acid above 30 inches, and very strongly acid to slightly acid below 30 inches
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 2.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of the sod cover.

Recreation

This map unit is very limited for playgrounds because of slope. This unit is somewhat limited for most recreational uses because of the depth to the saturated zone. The addition of fill material or adequate drainage will greatly improve conditions for these uses. Some additional grading and smoothing will be needed, particularly for playground use. Less sloping soils will require less grading and smoothing.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited to log landings and natural road surfaces because of seasonal wetness and relatively low soil strength within the upper soil profile. This unit is moderately suited for mechanical planting because of surface rock fragments, which may interfere with the logging operations. Additional fill material and possibly drainage may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include balsam fir, white spruce, and eastern white pine.

Dwellings with basements

This map unit is very limited for dwellings with basements because of seasonal wetness or the depth to saturated zone. Selecting sites in well drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a saturated zone above the denser substratum, particularly in the spring. Alternative septic system designs that properly filter effluent above the substratum, and drainage to intercept seepage should be considered.

The capability subclass is 2e.

Ra—Raynham silt loam

This very deep, nearly level, somewhat poorly drained soil formed in deposits of silt and very fine sand. It is on old glacial lake plains. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 10 acres and are oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 12 inches, dark grayish brown silt loam

Subsoil:
12 to 34 inches, mottled, yellowish brown very fine sandy loam

Substratum:
34 to 72 inches, mottled, light brownish gray very fine sandy loam

Included with this soil in mapping are small areas of well drained Unadilla soils and moderately well drained Scio soils on convex knolls. Also included are areas of clayey Rhinebeck and Madalin soils. Included areas are up to 5 acres and make up about 40 percent of the unit.

Soil Properties

Permeability: moderate or moderately slow in the subsoil, and slow in the substratum
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to neutral in the surface and subsoil, and moderately acid to slightly alkaline in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 1.0 to 2 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for hay, pasture, or woodland. This map unit is considered prime farmland when the soil is adequately drained.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is very limited especially for camp areas and playgrounds because of the depth to the saturated zone. Higher, better-drained areas should be considered for recreational uses. The addition of fill material and adequate drainage will greatly improve conditions for these uses.

Woodland

The potential productivity for red maple is moderate. This map unit is moderately suited to log landings and natural road surfaces because of seasonal wetness and relatively low soil strength within the upper soil profile. Higher, more-convex positions should be considered. Additional fill material and possibly drainage may be necessary to build roads and efficiently process logs. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include white spruce and eastern white pine.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in the lower subsoil or substratum, and the depth to the saturated zone, especially in the spring. Higher, better drained nearby sites should be considered for installing an effective septic system at less cost. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 3w.

RhA—Rhinebeck silt loam, 0 to 3 percent slopes

This very deep, nearly level, somewhat poorly drained soil formed in water-deposited silt and clay. It is on glacial lake plains and upland areas. Individual areas range mainly from 5 to 30 acres and are oval, or long and narrow along drainageways.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, dark grayish brown silt loam
9 to 11 inches, mottled, light brownish gray silt loam

Subsoil:
11 to 22 inches, mottled, dark brown silty clay loam
22 to 37 inches, mottled, dark grayish brown silty clay

Substratum:
37 to 72 inches, mottled, dark brown silty clay loam

Included with this soil in mapping are small areas of moderately well drained Hudson soils on high spots, and poorly drained or very poorly drained Madalin soils in depressions. Also included in the uplands are areas of moderately deep Hornell soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately slow in the surface, and slow in the subsoil and substratum
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to neutral in the surface layer, strongly acid to slightly alkaline in the subsoil, and slightly acid to moderately alkaline in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: .5 to 1.5 feet at some time during January through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are in woodlots or orchards.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover (fig. 10).

Recreation

This map unit is very limited for most recreational uses because of the depth to saturated zone. Campsites, picnic areas, and playgrounds are also somewhat limited because of the restricted permeability. The addition of fill material and improved drainage will be needed in most areas of this map unit to make these uses functional. A higher, drier site should be considered for these uses.

Woodland

The potential productivity for sugar maple is moderate. This map unit is moderately suited to log landings and natural road surfaces because of the seasonal wetness and relatively low soil strength within the upper soil profile. This unit is moderately suited for mechanical planting because of stickiness, which can interfere with efficient operation of machinery. Higher, more convex sites should be considered for these uses. Additional fill material and possibly drainage may be necessary to build roads and efficiently process logs. There is also a high

Figure 10.—Rhinebeck soils must be carefully managed when used for grazing to avoid compaction and protect sod cover. These race horses, as well as other livestock, must be kept off pasture areas when the soil is wet. A drainage system should be installed to remove excess surface and groundwater.

potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include Norway spruce, white spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability and depth to the saturated zone. Specially designed septic systems or selecting sites in better drained nearby areas may reduce these limitations.

The capability subclass is 3w.

RhB—Rhinebeck silt loam, 3 to 8 percent slopes

This very deep, gently sloping, somewhat poorly drained soil formed in water-deposited silt and clay. It is on glacial lake plains and upland areas. Individual areas range mainly from 10 to 30 acres and are oval, or long and narrow along drainageways.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, dark grayish brown silt loam
9 to 11 inches, mottled, light brownish gray silt loam

Subsoil:
11 to 22 inches, mottled, dark brown silty clay loam
22 to 37 inches, mottled, dark grayish brown silty clay

Substratum:
37 to 72 inches, mottled, dark brown silty clay loam

Included with this soil in mapping are small areas of moderately well drained Hudson soils on high spots, and poorly drained or very poorly drained Madalin soils in depressions. Also included in the uplands are areas of moderately deep Hornell soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately slow in the surface, and slow in the subsoil and substratum
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to neutral in the surface layer, strongly acid to slightly alkaline in the subsoil, and slightly acid to moderately alkaline in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: .5 to 1.5 feet at some time during January through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. Some areas are used as woodlots or orchards.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow hay, small grains, corn silage, fruits and vegetables. The seasonal high water table may delay soil preparation and planting. Unless the soil is adequately drained, selection is limited to crops that are more tolerant to wetness. Adequate drainage outlets are sometimes difficult to locate. Reduced tillage practices, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce compaction and erosion as well as promote good soil tilth.

Pasture

This map unit is well suited to pasture. However, the seasonal high water table may restrict the root growth of some legumes. Deferment of grazing in the spring and during other wet periods will help to maintain tilth and protect sod cover. Proper stocking rates, nutrient management, and weed control will help increase forage yields and maintain sod cover.

Recreation

This map unit is very limited for most recreational uses because of the depth to saturated zone. Campsites, picnic areas, and playgrounds are also somewhat limited because of restricted permeability. The addition of fill material and improved drainage will be needed in most areas of this map unit to make these uses functional. A higher, drier site should be considered for these uses.

Woodland

The potential productivity for sugar maple is moderate. This map unit is moderately suited to log landings and natural road surfaces because of seasonal wetness and relatively low soil strength within the upper soil profile. This unit is moderately suited for mechanical planting because of slope and stickiness, which can interfere with efficient operation of machinery. Higher, more convex sites should be considered for this use. Additional fill material and possibly drainage may be necessary to efficiently stack and process logs. The hazard of erosion on roads and trails is moderate because of slope. Water control structures can be installed to divert flowing water away from these passages. Also, there is a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include Norway spruce, white spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability and depth to saturated zone. Specially designed septic systems or selecting sites in better drained nearby areas may reduce these limitations.

The capability subclass is 3w.

Sa—Scarboro mucky loamy sand

This very deep, nearly level, very poorly drained soil formed in water sorted sand. It is in depressions on glacial outwash and lake plains. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 30 acres and are oval to rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 3 inches, black mucky peat
3 to 10 inches, black mucky loamy sand

Substratum:
10 to 19 inches, light gray sand
19 to 29 inches, mottled, light olive gray sand
29 to 45 inches, mottled, gray sand
45 to 75 inches, mottled, dark greenish gray loamy sand

Included with this soil in mapping are small areas of somewhat poorly drained Wareham soils, sandy over clayey Cheektowaga soils, and mucky Palms soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately slow to moderately rapid in the organic surface, and rapid in the mineral surface layer and substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: strongly acid to moderately acid in the surface, and moderately acid to neutral in the substratum
Surface runoff: very slow or ponded
Erosion hazard: slight
Depth to water table: 1 foot above the surface to 1 foot below the surface throughout the year
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil are wooded or overgrown with brush.

Cropland

This map unit is not suited to cultivated crops. Unless the soil is drained, the seasonal high water table interferes with cultivation. When outlets are available, surface or subsurface drainage systems may allow some areas to be cultivated. However, many areas of this map unit are considered to be valuable wetland habitat.

Pasture

This map unit is poorly suited to pasture because of the high water table, soft ground conditions, and lack of suitable plants for forage.

Recreation

This map unit is very limited for most recreational uses because of the depth to the saturated zone and ponding. This unit is very limited for golf fairways because of the high organic matter content. Higher, better-drained areas should be considered for these uses. This unit may be a valuable wetland habitat.

Woodland

The potential productivity for red maple is moderate. This map unit is poorly suited for most logging operations because of wetness or ponding. This unit is not suited to mechanical planting because of wetness. A higher position on the landscape should be considered for log landings as well as other harvesting operations. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include northern white cedar.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness and ponding. Selecting sites in higher, better drained, nearby areas is recommended.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil, wetness or the depth to saturated zone, and ponding. Inadequate filtering by the soil above a saturated zone may result in pollution of surface and ground water. Higher, better drained nearby sites should be considered for this use.

The capability subclass is 5w.

SCB—Schroon sandy loam, gently sloping, stony

This very deep, moderately well drained soil formed in loamy glacial till. It is on till plains and on the lower slopes of hills in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 30 acres and are oval or irregular. Stones are 30 to 100 feet apart on the surface. Slopes range from 0 to 8 percent.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, slightly decomposed leaf litter
2 to 6 inches, very dark brown sandy loam

Subsoil:
6 to 14 inches, dark yellowish brown sandy loam
14 to 22 inches, mottled, dark brown sandy loam

Substratum:
22 to 32 inches, strongly mottled, dark brown sandy loam
32 to 72 inches, mottled, dark grayish brown sandy loam

Included with this soil in mapping are small areas of well drained Bice soils. Also included are areas of Berkshire soils, which have reddish, subsoil layers and occur at altitudes above 1,000 feet. Included areas are up to 10 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate or high
Soil reaction: extremely acid through moderately acid in the surface, very strongly acid to moderately acid in the subsoil, and strongly acid to slightly acid in the substratum
Surface runoff: slow
Erosion hazard: none
Depth to water table: 1.5 to 2 feet at some time during November through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. Some areas have been cleared of surface stones, and are used to grow silage corn or hay, or used as pasture. A few areas are being used as sites for residential development in conjunction with better-drained soils.

Cropland

This map unit is well suited to cultivated crops; although some surface stones are present. Some areas can be used to grow small grains, corn silage, hay, fruits and vegetables. The seasonal high water table can cause soft ground conditions under heavy farm equipment. Stone removal and subsurface drainage can improve soil conditions for planting. The use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing in the spring and during other wet periods will protect soil tilth and maintain sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to the saturated zone. It is also somewhat limited in some parts of this unit for playground development because of slope. The addition of fill material or adequate drainage may greatly improve conditions for these uses. Some additional grading and smoothing will be needed, particularly if this map unit is used for playgrounds.

Woodland

The potential productivity for sugar maple is moderate. This map unit is moderately suited for log landings and natural road surfaces because of seasonal wetness and the relatively low soil strength in the soil surface. Improved drainage, leveling, or additional fill material may be needed in some areas of this map unit. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. This unit has a moderate potential for seedling mortality because of soil reaction. Trees that are tolerant to extremely acid soil conditions should be considered for planting. Trees to manage include red pine, white spruce, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the seasonal wetness or the depth to the saturated zone. Selecting sites in well drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the seasonal wetness or depth to the saturated zone (especially in the spring). Higher, better drained nearby sites should be considered for installing conventional systems at less cost. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 2w.

SeA—Scio silt loam, 0 to 3 percent slopes

This very deep, nearly level, moderately well drained soil formed in deposits of silt and very fine sand. It is on old alluvial fans and terraces. Individual areas range mainly from 5 to 20 acres and are rectangular or oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 4 inches, mottled, dark grayish brown silt loam

Subsoil:
4 to 14 inches, mottled, brown silt loam
14 to 23 inches, mottled, yellowish brown silt loam

Substratum:
23 to 34 inches, mottled, dark brown silt loam
34 to 72 inches, dark yellowish brown silt loam

Included with this soil in mapping are small areas of well drained Unadilla soils on convex knolls, and somewhat poorly drained Raynham soils in depressions. Also included are areas of sandy Deerfield soils and clayey Hudson soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the subsoil, and moderately rapid or rapid in the substratum
Available water capacity (average for 40-inch profile): high
Soil reaction: unless limed, extremely acid to strongly acid in the surface and subsoil within depths of 30 inches; very strongly acid to moderately acid in the subsoil below 30 inches; and strongly acid to slightly alkaline in the substratum
Surface runoff: slow
Erosion hazard: none
Depth to water table: 1.5 to 2 feet at some time during March through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. A few areas are used as woodlots.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. The seasonal high water table can cause soft ground conditions under heavy farm equipment. Subsurface drainage can improve soil conditions for planting. The use of cover crops or sod-forming crops and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing in the spring and during other wet periods will protect soil tilth and maintain sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to saturated zone. The addition of fill material or adequate drainage may greatly improve conditions for these uses.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited for log landings and natural road surfaces because of wetness and the relatively low soil strength in the upper soil profile. Improved drainage or additional fill material may be needed in some areas of this unit. Trees to manage include European larch, red pine, and Norway spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of seasonal wetness or the depth to saturated zone. Selecting sites in well drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of seasonal wetness or depth to the saturated zone (especially in the spring). Higher, better drained, nearby sites should be considered for installing conventional systems at less cost. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 2w.

SeB—Scio silt loam, 3 to 8 percent slopes

This very deep, gently sloping, moderately well drained soil formed in deposits of silt and very fine sand. It is on old alluvial fans and terraces. Individual areas range mainly from 5 to 20 acres and are rectangular or oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 4 inches, mottled, dark grayish brown silt loam

Subsoil:
4 to 14 inches, mottled, brown silt loam
14 to 23 inches, mottled, yellowish brown silt loam

Substratum:
23 to 34 inches, mottled, dark brown silt loam
34 to 72 inches, dark yellowish brown silt loam

Included with this soil in mapping are small areas of well drained Unadilla soils on convex knolls, and somewhat poorly drained Raynham soils in depressions. Also included are areas of sandy Deerfield soils and clayey Hudson soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the subsoil, and moderately rapid or rapid in the substratum
Available water capacity (average for 40-inch profile): high
Soil reaction: unless limed, extremely acid to strongly acid in the surface and subsoil within depths of 30 inches; very strongly acid to moderately acid in the subsoil below 30 inches; and strongly acid to slightly alkaline in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 2 feet at some time during March through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. A few areas are used as woodlots.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to the saturated zone. It is very limited for playground development because of slope. The addition of fill material or adequate drainage may greatly improve conditions for these uses. Some additional grading and smoothing will be needed, particularly for playground use.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited for log landings and natural road surfaces because of wetness, slope, and relatively low soil strength in the upper soil profile. Improved drainage, leveling, or additional fill material may be needed in some areas of this unit. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include European larch, red pine, and Norway spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of seasonal wetness or the depth to the saturated zone. Selecting sites in well drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of seasonal wetness or depth to the saturated zone (especially in the spring). Higher, better drained nearby sites should be considered for installing conventional systems at less cost. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 2e.

Sh—Shaker very fine sandy loam

This very deep, nearly level, poorly drained soil formed in a loamy mantle over clayey sediments. It is on old glacial lake plains. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 10 acres and are oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, very dark grayish brown very fine sandy loam

Subsoil:
9 to 17 inches, mottled, olive very fine sandy loam
17 to 31 inches, mottled, dark grayish brown loam

Substratum:
31 to 46 inches, streaked, olive silty clay
46 to 72 inches, mottled, olive and gray varved silt and clay

Included with this soil in mapping are small areas of very poorly drained Cheektowaga soil, and sandy over clayey Cosad soil. Also included are areas of silty Raynham soil. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately rapid in the upper loamy layers, and slow or very slow in the clayey substratum
Available water capacity (average for 40-inch profile): moderate or high
Soil reaction: strongly acid to neutral in the surface and subsoil, and moderately acid to slightly alkaline in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 0 to 1.5 feet at some time during October through June
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for hay, pasture, or woodlots. This map unit is considered prime farmland when the soil is adequately drained.

Cropland

This map unit is poorly suited to cultivated crops. Wetness, especially in the spring, limits the use of heavy equipment for cultivation, and restricts rooting depth. Installation of subsurface drainage systems can lower the water table if adequate outlets can be designed. Areas of this map unit may be considered valuable wetland habitat.

Pasture

This map unit is moderately suited to pasture. Proper stocking rates and timely deferment of grazing during the spring and rainy periods can help prevent compaction and damage to the sod, and maintain forage yields.

Recreation

This map unit is very limited for most recreational uses because of the depth to the saturated zone. Campsites, picnic areas and playgrounds are also very limited because of the restricted permeability. The addition of fill material and improved drainage will be needed in most areas of this map unit to make these uses functional. However, these areas may be valuable wetland habitat. A higher, drier site should be considered for these uses.

Woodland

The potential productivity for red maple is moderate. This map unit is poorly suited for log landings and natural road surfaces because of wetness. Higher, more-convex positions should be considered for log landings. Improved drainage and the addition of fill material may be needed in most areas for this use. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include white spruce and eastern white pine.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to the saturated zone. Selecting sites in better drained, nearby areas should be considered. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in the substratum, and the depth to saturated zone, especially in the spring. Higher, better drained nearby sites should be considered for installing an effective septic system at less cost. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 4w.

SKB—Skerry fine sandy loam, gently sloping, very stony

This very deep, moderately well drained soil formed in loamy glacial till underlain by very firm sandy glacial till. It is at the base of slopes and in slightly depressional areas in the higher elevations of the Adirondack foothills. Individual areas range mainly from 10 to 40 acres and are rectangular. Slopes range from 0 to 8 percent. Stones are 10 to 30 feet apart on the surface.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, slightly decomposed leaf and needle litter
2 to 4 inches, very dark gray, highly decomposed organic material

Subsurface layer:
4 to 5 inches, dark brown fine sandy loam

Subsoil:
5 to 8 inches, dark reddish brown fine sandy loam
8 to 17 inches, mottled, dark brown and yellowish brown gravelly fine sandy loam
17 to 26 inches, mottled, dark yellowish brown gravelly sandy loam

Substratum:
26 to 72 inches, mottled, dark yellowish brown, dark brown, and light olive brown gravelly sandy loam and gravelly loamy sand

Included with this soil in mapping are small areas of well drained Berkshire or Becket soils, and poorly drained Lyme soils. Included areas are up to 10 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately slow to moderately rapid in the organic surface, moderate in the mineral surface and subsoil, and moderately slow or slow in the substratum
Available water capacity (average for 40-inch profile): moderate
Soil reaction: very strongly acid to slightly acid in the solum, and very strongly acid to neutral in the substratum
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 2.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested.

Cropland

This map unit is not suited to cultivated crops. The main limitations are surface boulders and stones and the relatively short growing season in the high elevations. Use of sod-forming crops and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

Most areas of this map unit are poorly suited to pasture. Large surface stones make management difficult, and the short growing season reduces available forage. Stone clearing and rotational grazing will help to improve forage conditions.

Recreation

This map unit is somewhat limited for many recreational uses because of the depth to the saturated zone and large surface stones. Playground development is also somewhat limited on this map unit because of the slope. Some drainage to remove excess water will be needed in some parts of this unit, especially for campsites and playgrounds. Grading, smoothing, and stone clearing at camp, picnic, and playground sites will be needed in most areas of this map unit.

Woodland

The potential productivity for eastern white pine is very high. This map unit is moderately suited to log landings and natural road surfaces because of seasonal wetness. This unit is moderately suited for mechanical planting because large surface stones can interfere with logging operations. Additional fill material and grading may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. There is also a high potential for seedling mortality because of wetness in some areas of this unit. Only species that are wetness-tolerant should be selected for this site. Trees to manage include eastern white pine and white spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to a saturated zone above the dense substratum. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because the depth to a saturated zone above the denser substratum, particularly in the spring. Well drained sites such as included Berkshire soils should be considered for this use. Alternative septic system designs that properly filter effluent above the substratum, and drainage to intercept seepage should be considered.

The capability subclass is 6s.

Sn—Sun silt loam

This very deep, nearly level, poorly drained soil formed in glacial till which has a dense substratum. It is at the base of hills, along drainageways and in slight depressions on till plains in uplands. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 20 acres and are oval or serpentine.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 1 inch, very dark brown moderately decomposed grasses and forbs
1 to 13 inches, mottled, very dark gray silt loam

Subsoil:
13 to 27 inches, mottled, dark gray and dark grayish brown silt loam
27 to 34 inches, mottled, olive brown loam

Substratum:
34 to 50 inches, mottled, dark grayish brown cobbly fine sandy loam
50 to 72 inches, dark greenish gray and greenish gray cobbly loam

Included with this soil in mapping are small areas of somewhat poorly drained Mosherville soils. Also included are areas of Massena soils, which have a friable substratum; and Manlius soils, which are 20 to 40 inches deep to shale bedrock. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the mineral surface, moderate or moderately slow in the subsoil, and moderately slow or slow in the substratum
Available water capacity (average for 40-inch profile): moderate to high
Soil reaction: strongly acid to slightly acid in the surface layer; moderately acid to neutral in the subsoil; neutral to moderately alkaline in the substratum
Surface runoff: very slow to ponded
Erosion hazard: slight
Depth to water table: 1 foot above the surface to a depth of .5 feet during November through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. Some areas are used as pasture.

Cropland

This map unit is not suited to cultivated crops. Unless the soil is drained, the seasonal high water table interferes with cultivation during much of the year. When outlets are available, surface or subsurface drainage systems may allow some areas to be cultivated. However, many areas of this map unit are considered to be valuable wetland habitat.

Pasture

This map unit is poorly suited to pasture, except in the driest years. Valuable wetland species may be displaced and palatable forage species are typically few. Proper stocking rates and timely deferment of grazing in the spring and after rainy periods will reduce compaction and the loss of seeding.

Recreation

This map unit is very limited for most recreational uses because of the depth to the saturated zone and ponding. Higher, better-drained areas should be considered for these uses. This unit may be a valuable wetland habitat.

Woodland

The potential productivity for red maple is moderate. This map unit is poorly suited for log landings and natural road surfaces because of wetness and ponding. A better-drained, higher position on the landscape should be considered for log landings as well as other harvesting operations. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include northern white cedar.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness and ponding. A better-suited site should be selected. Selecting sites in higher, better drained, nearby areas is recommended to reduce these limitations.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability in some areas of this unit, ponding, and the depth to a saturated zone. Conventional septic systems will fail to function properly in this unit. A nearby, well drained site should be considered for this use.

The capability subclass is 5w.

StA—Sutton loam, 0 to 3 percent slopes

This very deep, nearly level, moderately well drained soil formed in glacial till in uplands. It is on lower side slopes or in slight depressions. Individual areas range mainly from 5 to 30 acres and are rectangular and narrow, or oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, dark brown loam

Subsoil:
9 to 17 inches, mottled, brown fine sandy loam
17 to 24 inches, mottled, dark yellowish brown sandy loam
24 to 30 inches, mottled, yellowish brown sandy loam

Substratum:
30 to 72 inches, mottled, olive brown sandy loam

Included with this soil in mapping are small areas of well drained Charlton soils and somewhat poorly drained Massena soils. Also included are areas of Woodbridge soils, which have a restrictive layer; and Chatfield soils, which are 20 to 40 inches deep to bedrock. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate or high
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: slow or medium
Erosion hazard: slight
Depth to water table: 1.5 to 2.5 feet at some time during November through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are used as woodlots, orchards, or as sites for residential development.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. The seasonal high water table can cause soft ground conditions under heavy farm equipment. Subsurface drainage can improve soil conditions for planting. The use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing in the spring and during other wet periods will protect soil tilth and maintain sod cover.

Recreation

This map unit is somewhat limited for camp areas, picnic areas, playgrounds, and golf fairways because of the depth to the saturated zone. The addition of fill material or adequate drainage may greatly improve conditions for these uses.

Woodland

The potential productivity for northern red oak is moderate. This map unit is moderately suited to log landings and natural road surfaces because of the relatively low soil strength in the upper soil profile. Additional fill material may be necessary to efficiently stack and process logs. Trees to manage include white spruce, European larch, and Norway spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to the saturated zone. Selecting sites in well drained, Charlton soils or other nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of seasonal wetness or depth to the saturated zone (especially in the spring). Higher, well drained Charlton soils or other nearby sites should be considered for installing conventional systems. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 2w.

StB—Sutton loam, 3 to 8 percent slopes

This very deep, gently sloping, moderately well drained soil formed in glacial till in uplands. It is on lower side slopes of hills. Individual areas range mainly from 5 to 30 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, dark brown loam

Subsoil:
9 to 17 inches, mottled, brown fine sandy loam
17 to 24 inches, mottled, dark yellowish brown sandy loam
24 to 30 inches, mottled, yellowish brown sandy loam

Substratum:
30 to 72 inches, mottled, olive brown sandy loam

Included with this soil in mapping are small areas of well drained Charlton soils and somewhat poorly drained Massena soils. Also included are areas of Woodbridge soils, which have a restrictive layer; and Chatfield soils, which are 20 to 40 inches deep to bedrock. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate or high
Soil reaction: very strongly acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: slight
Depth to water table: 1.5 to 2.5 feet at some time during November through April
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are used as woodlots, orchards, or as sites for residential development.

Cropland

This soil is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of the sod cover.

Recreation

This map unit is somewhat limited for camp areas, picnic areas, playgrounds, and golf fairways because of the depth to the saturated zone. This map unit is very limited for playgrounds because of slope. The addition of fill material or adequate drainage may greatly improve conditions for these uses. Some additional grading and smoothing will be needed, particularly if this map unit is used as a site for playgrounds.

Woodland

This map unit is moderately suited to log landings and natural road surfaces because of slope and the relatively low soil strength in the upper soil profile. Additional fill material and grading may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or depth to the saturated zone. Selecting sites in well drained Charlton soils or other nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the seasonal wetness or depth to the saturated zone, especially in the spring. Higher, well drained Charlton soils or other nearby sites should be considered for installing conventional systems at less cost. Alternative septic system designs that properly filter effluent and provide drainage of excess wetness should be considered.

The capability subclass is 2e.

Te—Teel silt loam

This very deep, nearly level, moderately well drained soil formed in recent alluvium. It is on floodplains along rivers and large streams. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 30 acres and are rectangular or long and narrow.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 12 inches, dark grayish brown silt loam

Subsoil:
12 to 24 inches, mottled, brown silt loam
24 to 38 inches, mottled, dark brown silt loam

Substratum:
38 to 44 inches, mottled, yellowish brown silt loam
44 to 72 inches, mottled, yellowish brown very fine sandy loam

Included with this soil in mapping are small areas of well drained Tioga soils and poorly drained Limerick soils. Also included are areas of Udipsamments, dredged. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate throughout the mineral soil
Available water capacity (average for 40-inch profile): high
Soil reaction: strongly acid to neutral above 30 inches, and moderately acid to slightly alkaline below
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 1.5 to 2 feet at some time during January through May
Depth to bedrock: greater than 60 inches
Flooding hazard: occasional, brief

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are used as woodlots or being used to grow nursery stock or landscaping sod.

Cropland

This map unit is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. The seasonal high water table and occasional flooding in the spring can cause soft ground conditions under heavy farm equipment. Subsurface drainage can improve soil conditions for planting. The use of cover crops or sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This soil is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing in the spring and during other wet periods will protect soil tilth and maintain sod cover.

Recreation

This map unit is very limited because of the threat of flooding, particularly for camp areas. Rapidly rising water could threaten human life and property. Placing these sites on slightly higher landscape positions could reduce this threat. This map unit is somewhat limited for many recreational uses because of the depth to the saturated zone. The addition of fill material or adequate drainage will greatly improve conditions for these uses.

Woodland

The potential productivity for sugar maple is moderate. This map unit is poorly suited for log landings and natural road surfaces because of occasional flooding. A higher position on the landscape should be considered for log landings. Trees to manage include Norway spruce, black walnut, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone and occasional flooding from a nearby stream. Selecting sites in higher, better drained nearby areas is recommended to reduce these limitations.

Septic Tank Absorption Fields

This map unit is very limited because of the depth to saturated zone and occasional flooding. Inadequate filtering of effluent above the saturated zone may result in pollution of the surface or ground water. Higher, better drained nearby areas should be considered for this use.

The capability subclass is 2w.

Tg—Tioga fine sandy loam

This very deep, nearly level, well drained soil formed in recent alluvium. It is on floodplains. Slopes range from 0 to 3 percent. Individual areas range mainly from 20 to 80 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 9 inches, very dark grayish brown fine sandy loam

Subsoil:
9 to 18 inches, brown fine sandy loam
18 to 29 inches, very dark grayish brown fine sandy loam

Substratum:
29 to 72 inches, light olive brown fine sandy loam

Included with this soil in mapping are small areas of moderately well drained Teel soils. Also included are areas of silty Unadilla or Scio soils. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: moderate or moderately rapid in the solum, and moderate to rapid in the substratum.
Available water capacity (average for 40-inch profile): moderate or high
Soil reaction: strongly acid to neutral in the solum, and moderately acid to slightly alkaline in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: 3 to 6 feet at some time during February through April
Depth to bedrock: greater than 60 inches
Flooding hazard: occasional, brief

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Few areas are in woodlots, and some are being used to grow sod for landscaping.

Cropland

This map unit is very well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. Flooding in the spring may cause a delay in cultivation for planting. Using cover crops or sod forming crops, and returning crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, rotational grazing and weed control will help protect vegetation and increase forage yields.

Recreation

This map unit is very limited because of the threat of flooding, particularly for camp areas. Rapidly rising water could threaten human life and property. Placing these sites on slightly higher landscape positions can reduce this threat.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is poorly suited for log landings and natural road surfaces because of occasional flooding. A higher position on the landscape should be considered for log landings. Trees to manage include Norway spruce, black walnut, and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to a saturated zone, and occasional flooding from a nearby stream. Selecting sites in higher, better drained, nearby areas is recommended to reduce these limitations.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and occasional flooding. Selecting sites on higher, non-floodplain soils may reduce this limitation. Inadequate filtering of the effluent may result in the pollution of the surface or ground water. Alternative septic system designs should be considered to insure adequate treatment of effluent.

The capability subclass is 1.

TNC—Tunbridge-Lyman complex, strongly sloping, very rocky

This unit consists of moderately deep, well drained Tunbridge soils, and shallow, somewhat excessively drained Lyman soils. They are on bedrock-controlled mountains, ridges, and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 20 to 100 acres and are long and narrow, or irregular shaped. Boulders are 10 to 30 feet apart on the surface. Slopes range from 3 to 15 percent.

The soils in this map unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Tunbridge soils, 30 percent Lyman soils, 5 percent rock outcrop, and 15 percent other soils.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Tunbridge soils

Surface layer:
0 to 2 inches, slightly decomposed organic mat of hardwood leaves
2 to 4 inches, very dark gray highly decomposed organic material
4 to 6 inches, dark brown loam

Subsurface layer:
6 to 7 inches, reddish gray fine sandy loam

Subsoil:
7 to 9 inches, dark reddish brown loam
9 to 16 inches, dark brown, strong brown, and yellowish red sandy loam
16 to 26 inches, dark brown sandy loam

Substratum:
26 to 31 inches, dark yellowish brown sandy loam

Bedrock:
31 inches, unweathered gneiss bedrock

Lyman soils

Surface layer:
0 to 1 inch, slightly decomposed sphagnum moss and beech leaves
1 to 5 inches, black loam

Subsurface layer:
5 to 6 inches, dark reddish gray sandy loam

Subsoil:
6 to 13 inches, yellowish red and brown loam

Bedrock:
13 inches, hard gneiss bedrock

Included with this soil in mapping are small areas of very deep, well drained Becket or Berkshire soils; moderately well drained Skerry soils at the base of slopes and in slight depressions; poorly drained Lyme soils along drainageways and in depressions; and areas of soil that is less than 10 inches deep. Included areas are up to 10 acres and make up about 15 percent of the unit.

Soil Properties

Tunbridge soils

Permeability: moderate to moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum
Surface runoff: slow to moderate
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Lyman soils

Permeability: moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: extremely acid to moderately acid throughout
Surface runoff: medium
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil complex are forested.

Cropland

This map unit is not suited to cultivated crops. Areas of rock outcrop interfere with tillage operations. The low available water capacity in the Lyman part of this unit limits production in many years. On long, poorly vegetated slopes, these soils may erode easily. Using cover crops or sod-forming crops, and returning crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

The soils in this map unit are poorly suited to pasture because of areas of rock outcrop, boulders on the surface, and the short growing season.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of the depth to bedrock in the Lyman part. This unit is very limited for playgrounds because of the excessive slope. Grading and smoothing of gravel-free fill material will improve conditions for campsites and picnic areas. A significant amount of quality fill material may be necessary to provide if this unit is used for playgrounds. Water erosion is a concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity for sugar maple is moderate. This map unit is moderately suited for log landings and natural road surfaces because of slope and large surface stones. This unit has a severe limitation for construction of haul roads and landings because of the shallow bedrock in the Lyman part. Some stone clearing and grading may be necessary for building roads and processing logs. Roads should be routed around shallow to bedrock areas to avoid blasting. The hazard of erosion on roads and trails is also moderate because of slope. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include white spruce, eastern white pine, and balsam fir.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock. Excavation may be difficult for machinery and necessitate blasting. Other sites should be considered. Placing the building in deeper nearby areas may save on site preparation costs.

Septic Tank Absorption Fields

This map unit is very limited by the depth to bedrock. Conventional systems may fail to treat effluent properly, and threaten groundwater quality. Alternate sites in nearby deeper, well drained areas may work more effectively at lower cost.

The capability subclass is 6s.

TNE—Tunbridge-Lyman complex, steep, very rocky

This unit consists of moderately deep, well drained Tunbridge soils; and shallow, somewhat excessively drained Lyman soils. They are on bedrock-controlled mountains, ridges, and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 20 to 100 acres and are long and narrow, or irregular shaped. Boulders are 10 to 30 feet apart on the surface. Slopes range from 15 to 35 percent, but are dominantly greater than 25 percent.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Tunbridge soils, 30 percent Lyman soils, 5 percent rock outcrop, and 15 percent other soils.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Tunbridge soils

Surface layer:
0 to 2 inches, slightly decomposed organic mat of hardwood leaves
2 to 4 inches, very dark gray highly decomposed organic material
4 to 6 inches, dark brown loam

Subsurface layer:
6 to 7 inches, reddish gray fine sandy loam

Subsoil:
7 to 9 inches, dark reddish brown loam
9 to 16 inches, dark brown, strong brown, and yellowish red sandy loam
16 to 26 inches, dark brown sandy loam

Substratum:
26 to 31 inches, dark yellowish brown sandy loam

Bedrock:
31 inches, unweathered gneiss bedrock

Lyman soils

Surface layer:
0 to 1 inch, slightly decomposed sphagnum moss and beech leaves
1 to 5 inches, black loam

Subsurface layer:
5 to 6 inches, dark reddish gray sandy loam

Subsoil:
6 to 13 inches, yellowish red and brown loam

Bedrock:
13 inches, hard gneiss bedrock

Included with this soil in mapping are small areas of very deep, well drained Becket or Berkshire soils; moderately well drained Skerry soils at the base of slopes and in slight depressions; poorly drained Lyme soils along drainageways and in depressions; and areas of soil that is less than 10 inches deep. Included areas are up to 10 acres and make up about 15 percent of the unit.

Soil Properties

Tunbridge soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Lyman soils

Permeability: moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: extremely acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested.

Cropland

The soils in this complex are not suited to cultivated crops because of areas of rock outcrop, boulders on the surface, steep slope, and the short growing season which is caused by the high elevation.

Pasture

The soils in this complex are unsuited to use as pasture because of areas of rock outcrop, boulders on the surface, steep slope, and the short growing season which is caused by the high elevation.

Recreation

This map unit is very limited for many recreational uses because of the excessive slope and depth to bedrock in the Lyman part. Less sloping areas should be considered for camp areas, picnic areas, playgrounds, paths and golf fairways. Extensive grading and smoothing with gravel-free fill material for campsites and picnic areas may improve conditions for these uses. Water erosion is a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed around this unit or along the slope contour, where possible.

Woodland

The potential productivity for sugar maple is moderate. This map unit is poorly suited for log landings and natural road surfaces because of the steep slope. This unit is not suited for mechanical planting because of the slope. Shallow to bedrock areas cause a severe limitation to construction of roads or landings. Establishing log landings on nearly level or gently sloping areas may provide for a more efficient operation. The hazard of erosion on roads and trails is severe because of the slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include white spruce, eastern white pine, and balsam fir.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock and the steep slope. Excavation may be costly and difficult for machinery, and necessitate blasting. Other sites should be considered. Placing the building in deeper, less sloping nearby areas may save on site preparation costs.

Septic Tank Absorption Fields

This map unit is very limited by the depth to bedrock and the steep slope. Conventional systems may fail to treat effluent properly, and threaten groundwater quality. Alternate sites in nearby deeper, well drained, less sloping areas may work more effectively at lower cost.

The capability subclass is 7s.

TNF—Tunbridge-Lyman complex, very steep, very rocky

This unit consists of moderately deep, well drained Tunbridge soils; and shallow, somewhat excessively drained Lyman soils. They are on bedrock-controlled mountains, ridges, and other convex landscapes in the higher elevations of the Adirondack foothills. Individual areas range mainly from 20 to 100 acres and are long and narrow, or irregular shaped. Boulders are 10 to 30 feet apart on the surface. Slopes range from 35 to 45 percent.

The soils in this unit are in such an intricate pattern that it was not practical to separate them in mapping. The unit consists of about 50 percent Tunbridge soils, 30 percent Lyman soils, 5 percent rock outcrop, and 15 percent other soils.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Tunbridge soils

Surface layer:
0 to 2 inches, slightly decomposed organic mat of hardwood leaves
2 to 4 inches, very dark gray highly decomposed organic material
4 to 6 inches, dark brown loam

Subsurface layer:
6 to 7 inches, reddish gray fine sandy loam

Subsoil:
7 to 9 inches, dark reddish brown loam
9 to 16 inches, dark brown, strong brown, and yellowish red sandy loam
16 to 26 inches, dark brown sandy loam

Substratum:
26 to 31 inches, dark yellowish brown sandy loam

Bedrock:
31 inches, unweathered gneiss bedrock

Lyman soils

Surface layer:
0 to 1 inch, slightly decomposed sphagnum moss and beech leaves
1 to 5 inches, black loam

Subsurface layer:
5 to 6 inches, dark reddish gray sandy loam

Subsoil:
6 to 13 inches, yellowish red and brown loam

Bedrock:
13 inches, hard gneiss bedrock

Included with this soil in mapping are small areas of very deep, well drained Becket or Berkshire soils; moderately well drained Skerry soils at the base of slopes and in slight depressions; poorly drained Lyme soils along drainageways and in depressions; and areas of soil that is less than 10 inches deep. Included areas are up to 10 acres and make up about 15 percent of the unit.

Soil Properties

Tunbridge soils

Permeability: moderate or moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 20 to 40 inches
Flooding hazard: none

Lyman soils

Permeability: moderately rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: extremely acid to moderately acid throughout
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: 10 to 20 inches
Flooding hazard: none

Use and Suitability

Most areas of this soil complex are forested.

Cropland

The soils in this complex are not suited to cultivated crops because of areas of rock outcrop, boulders on the surface, very steep slope and the short growing season caused by the high elevation.

Pasture

The soils in this complex are not suited to use as pasture because of areas of rock outcrop, boulders on the surface, very steep slope, and the short growing season which is caused by the high elevation.

Recreation

This map unit is very limited for campsites, picnic areas, playgrounds, and golf fairways because of depth to bedrock in the Lyman part. This unit is very limited for most recreational uses because of very steep slope. Less sloping areas should be considered for these uses. Water erosion is a management concern on paths and trails. Water control structures may be installed to divert flowing water away from these passages. Paths and trails should be routed around this unit, where possible.

Woodland

The potential productivity for sugar maple is moderate. This map unit is poorly suited for log landings, natural road surfaces, and the use of harvesting equipment because of the very steep slope. This unit is not suited for mechanical planting because of the slope. Shallow to bedrock areas cause a severe limitation to construction of roads or landings. Establishing log landings on gently sloping areas will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of the slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be routed around this unit, where possible. Trees to manage include white spruce, eastern white pine, and balsam fir.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to bedrock and the very steep slope. Excavation will be costly and difficult, and blasting may be necessary. Other sites should be considered. Placing the building in deeper, less sloping nearby areas will save on site preparation costs.

Septic Tank Absorption Fields

This map unit is very limited by the depth to bedrock and the very steep slope. Conventional systems will fail to treat effluent properly and may threaten groundwater quality. Alternate sites in nearby deeper, well drained, less sloping areas will work more effectively and at a lower cost.

The capability subclass is 7s.

Ud—Udipsamments, dredged

This map unit consists of very deep, nearly level to undulating, moderately well drained to excessively drained soils formed in dredged material from the Mohawk or Hudson River. In some places, this material was piled into small knolls or allowed to spread in earth-berm enclosures. Areas are elongated parallel to the river and range from 50 to 400 acres. Slopes range from 0 to 8 percent.

Typically, the texture of the material is loamy sand or sand, with layers of silty material or gravel at varying depths. Subsurface layers are weakly stratified because of occasional new deposits on the surface.

Included with this unit in mapping are small areas of well drained Tioga soils, moderately well drained Teel soils and poorly drained Limerick soils. These are generally the original soils onto which the dredgings were piled or pumped, and are between piles or near the edge of the unit. Included soils make up about 10 percent of the unit and are up to 5 acres.

Soil Properties

Permeability: rapid to very rapid throughout
Available water capacity (average for 40-inch profile): very low or low
Soil reaction: variable due to the nature of the material
Surface runoff: slow or very slow
Erosion hazard: slight or moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: occasional, brief

Use and Suitability

This map unit is generally not suited for any purpose other than continued dredging. Some areas, after natural vegetation has developed, are suitable as wildlife habitat or recreational areas.

Cropland

This map unit is not suited to cultivated crops because of droughtiness and low available water capacity. The material is unstable for use of cultivation equipment.

Pasture

This map unit is not suited for use as pasture because of droughtiness and low available water capacity. The material is unstable with typically scarce vegetation.

Recreation

This map unit is very limited because of the threat of flooding, particularly for camp areas. Rapidly rising water could threaten human life and property. Placing recreation sites on slightly higher landscape positions can reduce this threat.

Woodland

The potential productivity for trees is very low due to soil droughtiness and infertility. This map unit is poorly suited for log landings and natural road surfaces because of occasional flooding. A higher position on the landscape should be considered for log landings. The eventual reuse of this map unit as a dredging site may preclude long-term forest development.

Dwellings with basements

This map unit is very limited for dwellings with basements because of occasional flooding from a nearby stream. Selecting sites in higher, better drained nearby areas is recommended to reduce these limitations. Other concerns about this unit are the instability of the materials and the expected reuse as dredge areas.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and occasional flooding. Selection of higher sites with moderately rapid permeability in nearby areas may reduce this limitation. Inadequate filtering of the soil may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Another concern is the possible reuse of this site as dredge areas.

This map unit is in capability subclass 7s.

Ue—Udorthents, smoothed

This unit consists of very deep, nearly level to gently sloping areas of well drained loamy soil material that are the result of man-made cuts and fills in loamy upland soils. Areas of this unit are roughly rectangular and range from 3 to 25 acres. Slopes range from 0 to 8 percent.

Typically, the surface layer is dark brown silt loam about 5 inches thick. The layers below the surface are brown and yellowish brown silt loam and loam containing up to 80 percent rock fragments to a depth of 72 inches or more.

Most areas of this unit have been graded and planted to vegetative cover. Some areas are used as building sites or recreational areas.

Included with this unit in mapping are areas filled with rock fragments and deeply buried rubbish. In a few areas the fill consists of materials such as building trash, cinders, coal ashes, and solid wastes. Also included are small areas of other soils that were not covered with fill material. Included areas make up about 20 percent of this map unit and range up to 5 acres.

This unit is highly variable in composition. Therefore, soil properties such as permeability, available water capacity, and soil reaction vary from area to area. Adjacent map unit delineation often provides clues to the soil properties of the unit.

The suitability of this unit for rural and urban uses varies from poor to good. Onsite investigation is needed for each individual site for any proposed use.

This unit is in capability subclass 6s.

UnB—Unadilla very fine sandy loam, 3 to 8 percent slopes

This very deep, gently sloping, well drained soil formed in deposits of silt and very fine sand. It is on old lake plains and terraces. Individual areas range mainly from 5 to 20 acres and are long and narrow or oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, slightly decomposed organic material
2 to 8 inches, dark brown very fine sandy loam

Subsoil:
8 to 42 inches, yellowish brown very fine sandy loam

Substratum:
42 to 72 inches, yellowish brown loamy very fine sand

Included with this soil in mapping are small areas of moderately well drained Scio soils. Also included are areas of sandy Oakville or Windsor soils and clayey Hudson soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the mineral surface and subsoil above 40 inches, and moderately rapid or rapid below 40 inches
Available water capacity (average for 40-inch profile): high
Soil reaction: very strongly acid to moderately acid in the surface and subsoil, and strongly acid to slightly alkaline in the substratum
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. A few areas are in woodlots, orchards, or are being used as sites for residential development.

Cropland

This soil is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is very limited for playgrounds because of slope. Grading and smoothing for playground sites may be needed in most areas of this map unit.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited to log landings and natural road surfaces because of the slope and relatively low soil strength in the upper soil profile. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include Norway spruce, black cherry, red pine, and white spruce.

Dwellings with basements

This map unit is not limited for use as a site for dwellings. Areas of disturbed soil should be protected with plant cover during construction to reduce any soil erosion.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil, particularly with rapidly permeable substrata. Inadequate filtering by the soil may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selection of sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 2e.

UnC—Unadilla very fine sandy loam, 8 to 15 percent slopes

This very deep, strongly sloping, well drained soil formed in deposits of silt and very fine sand. It is on old lake plains and terraces. Individual areas range mainly from 5 to 20 acres and are long and narrow or oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, slightly decomposed organic material
2 to 8 inches, dark brown very fine sandy loam

Subsoil:
8 to 42 inches, yellowish brown very fine sandy loam

Substratum:
42 to 72 inches, yellowish brown loamy very fine sand

Included with this soil in mapping are small areas of moderately well drained Scio soils. Also included are areas of sandy Oakville or Windsor soils and clayey Hudson soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the mineral surface and subsoil above 40 inches, and moderately rapid or rapid below 40 inches
Available water capacity (average for 40-inch profile): high
Soil reaction: very strongly acid to moderately acid in the surface and subsoil, and strongly acid to slightly alkaline in the substratum
Surface runoff: rapid
Erosion hazard: severe
Depth to water table: greater than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are used for agriculture. A few areas are used as woodlots, orchards, or as sites for residential development.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. On long slopes, and especially on areas bare of plant cover, this soil erodes easily. Cross slope tillage, the use of cover crops or sod-forming crops, and the return of crop residues help to reduce erosion and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can protect the sod cover and reduce soil erosion, especially on sloping areas. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of the slope. Grading and smoothing especially for playground sites will be needed in most areas of this map unit. Water erosion may be a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited to log landings and natural road surfaces because of slope and the relatively low soil strength in the upper soil profile. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a severe erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Roads should be built to follow the slope contour, where possible. Trees to manage include Norway spruce, black cherry, red pine, and white spruce.

Dwellings with basements

This map unit is somewhat limited for dwellings with basements because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil, particularly with rapidly permeable substrata. Inadequate filtering by soil may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3e.

Wa—Wareham loamy sand

This very deep, nearly level, poorly drained soil formed in water-sorted sand. It is on glacial outwash plains, lake plains, and deltas. Slopes range from 0 to 3 percent. Individual areas range mainly from 5 to 30 acres and are oval.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, very dark brown, slightly decomposed organic material
2 to 8 inches, mottled, very dark gray loamy sand

Subsoil:
8 to 11 inches, mottled, light brownish gray loamy sand
11 to 19 inches, mottled, yellowish brown loamy sand

Substratum:
19 to 72 inches, mottled, light brownish gray sand

Included with this soil in mapping are small areas of moderately well drained Deerfield soil, very poorly drained Scarboro soils, and soils similar to Wareham, but are somewhat poorly drained. Also included are areas of Cheektowaga soils, which have clayey subsoil layers, and silty Raynham soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: rapid throughout the mineral soil
Available water capacity (average for 40-inch profile): moderate
Soil reaction: extremely acid to strongly acid throughout
Surface runoff: slow
Erosion hazard: slight
Depth to water table: at the surface to 1.5 feet deep at some time during September through June
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this map unit are forested. Some areas are in woodlots or used for growing hay or used as pasture.

Cropland

This map unit is poorly suited to cultivated crops. Wetness, especially in the spring, limits use of heavy equipment for cultivation, and restricts rooting depth. Installation of subsurface drainage systems can lower the water table if adequate outlets can be designed. Areas of this map unit may be considered valuable wetland habitat.

Pasture

This map unit is moderately suited to pasture. Proper stocking rates and timely deferment of grazing during the spring and rainy periods can help prevent compaction and damage to the sod, and maintain forage yields.

Recreation

This map unit is very limited for many recreational uses because of the depth to the saturated zone. Higher, better drained areas should be considered for recreational uses. The addition of fill material or adequate drainage will greatly improve conditions; however, this unit may be a valuable wetland habitat.

Woodland

The potential productivity for eastern white pine is high. This map unit is poorly suited for log landings and natural road surfaces because of wetness. Improved drainage and the addition of fill material may be needed in most areas of this unit. Higher, more-convex positions should be considered. There is also a high potential for seedling mortality because of wetness. Only species that are wetness-tolerant should be selected for this site. Trees to manage include eastern white pine and white spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness or the depth to saturated zone. Selecting sites in better drained, nearby areas may reduce this limitation. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and depth to the saturated zone. Inadequate filtering of the soil above the saturated zone may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent.

Selecting well drained sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 4w.

WnA—Windsor loamy sand, nearly level

This very deep, excessively drained soil formed in water-sorted sand. It is on glacial outwash plains, kames, and terraces. Slopes range from 0 to 3 percent. Individual areas range mainly from 10 to 30 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, moderately decomposed pine needles
2 to 11 inches, very dark grayish brown loamy sand

Subsoil:
11 to 21 inches, yellowish brown loamy sand
21 to 25 inches, yellowish brown sand

Substratum:
25 to 72 inches, light yellowish brown sand

Included with this soil in mapping are small areas of moderately well drained Deerfield soils, and well drained, fine sandy Oakville soils. Also included are areas of gravelly Hinckley soils. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: rapid or very rapid throughout the soil
Available water capacity (average for 40-inch profile): low or moderate
Soil reaction: very strongly acid to moderately acid in the surface and subsoil, and very strongly acid to slightly acid in the substratum
Surface runoff: very slow
Erosion hazard: slight
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Many areas of this map unit are used for agriculture, while an increasingly large acreage is being used for suburban development. Some areas are used as orchards or small woodlots.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay and some fruits and vegetables. However, low available water capacity may reduce yields significantly. Use of cover crops or sod-forming crops, and return of crop residues to the soil help to improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can allow for regrowth after dry periods. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit may be somewhat limited for golf fairways because of droughtiness. An addition of loamy topsoil may improve vegetative growth and the soil’s ability to withstand pedestrian traffic.

Woodland

The potential productivity for northern red oak is moderate. This map unit is not limited for most woodland management activities. Trees to manage include red pine and Norway spruce.

Dwellings with basements

This map unit is not limited for use as dwellings. Areas of disturbed soil should be protected with plant cover during construction to reduce erosion and blowing of the fine sandy material.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering by the soil may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3s.

WnB—Windsor loamy sand, undulating

This very deep, excessively drained soil formed in water-sorted sand. It is on glacial outwash plains, kames and terraces. Slopes range from 3 to 8 percent, and is complex. Individual areas range mainly from 10 to 50 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, moderately decomposed pine needles
2 to 11 inches, very dark grayish brown loamy sand

Subsoil:
11 to 21 inches, yellowish brown loamy sand
21 to 25 inches, yellowish brown sand

Substratum:
25 to 72 inches, light yellowish brown sand

Included with this soil in mapping are small areas of moderately well drained Deerfield soils, and well drained, fine sandy Oakville soils. Also included are areas of gravelly Hinckley soils. Included areas are up to 5 acres and make up about 20 percent of the unit.

Soil Properties

Permeability: rapid or very rapid throughout the soil
Available water capacity (average for 40-inch profile): low or moderate
Soil reaction: very strongly acid to moderately acid in the surface and subsoil, and very strongly acid to slightly acid in the substratum
Surface runoff: slow
Erosion hazard: slight
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Many areas of this map unit are used for agriculture, while an increasingly large acreage is being used for suburban development. Some areas are in orchards or small woodlots.

Cropland

This map unit is moderately suited to cultivated crops. It can be used to grow small grains, corn silage, hay, and some fruits and vegetables. However, low available water capacity may reduce yields significantly. Use of cover crops or sod-forming crops, and return of crop residues to the soil help to improve moisture retention, reduce erosion, and promote good soil tilth.

Pasture

This map unit is well suited to pasture. Proper stocking rates and timely deferment of grazing can allow for regrowth after dry periods. Nutrient management and weed control will help increase forage yields.

Recreation

This map unit is very limited for playgrounds because of the slope. Less sloping areas will require less grading and smoothing. An addition of loamy topsoil may reduce droughtiness while improving vegetative growth and the soil's ability to withstand pedestrian traffic.

Woodland

The potential productivity for northern red oak is moderate. This map unit is moderately suited to log landings, natural road surfaces, and mechanical planting because slope. Some land leveling may be necessary to efficiently stack and process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and Norway spruce.

Dwellings with basements

This map unit is not limited for use as a site for dwellings. Areas of disturbed soil should be protected with plant cover during construction to reduce erosion of the fine sandy material.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering by soil may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 3s.

WnC—Windsor loamy sand, rolling

This very deep, excessively drained soil formed in water-sorted sand. It is on glacial outwash plains, kames, and terraces. Slopes range from 8 to 15 percent, and is complex. Individual areas range mainly from 20 to 100 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, moderately decomposed pine needles
2 to 11 inches, very dark grayish brown loamy sand

Subsoil:
11 to 21 inches, yellowish brown loamy sand
21 to 25 inches, yellowish brown sand

Substratum:
25 to 72 inches, light yellowish brown sand

Included with this soil in mapping are small areas of moderately well drained Deerfield soils, and well drained, fine sandy Oakville soils. Also included are areas of gravelly Hinckley soils. Included areas are up to 5 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: rapid or very rapid throughout the soil
Available water capacity (average for 40-inch profile): low or moderate
Soil reaction: very strongly acid to moderately acid in the surface and subsoil, and very strongly acid to slightly acid in the substratum
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Many areas of this map unit are used for agriculture, while increasingly large acreage is being used for suburban development. Some areas are in orchards or small woodlots. This map unit is a probable source of sand, and some sites are being excavated.

Cropland

This map unit is poorly suited to cultivated crops or hay. The main limitations are droughtiness and the potential for soil erosion. The low available water capacity limits plant growth during many years. On long, poorly vegetated slopes, this soil erodes easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion, improve available water capacity, and promote good soil tilth.

Pasture

This map unit is moderately suited to pasture. If overgrazing occurs, erosion can be a hazard because of slope. Proper stocking rates, timely deferment of grazing, and weed control will help increase forage yields and reduce the risk of erosion.

Recreation

This map unit is very limited for playgrounds because of slope. Choosing less sloping areas will require less grading and smoothing for playground sites. Water erosion is a management concern on heavily used paths and trails. Water control structures can be installed to divert flowing water away from these passages.

Woodland

The potential productivity for northern red oak is moderate. This map unit is moderately suited to log landings, natural road surfaces, and mechanical planting because of the slope. Some land leveling may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and Norway spruce.

Dwellings with basements

This map unit is somewhat limited for dwellings with basements because of slope. Some grading and smoothing will be necessary around the building for landscaping purposes and erosion control.
Areas of disturbed soil should be protected with plant cover during construction to reduce erosion and blowing of the fine sandy material. Land shaping and grading may reduce the limitation.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil. Inadequate filtering by the soil may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of effluent. Selecting sites with moderately rapid permeability in nearby areas may reduce this limitation.

The capability subclass is 4e.

WnD—Windsor loamy sand, hilly

This very deep, excessively drained soil formed in water-sorted sand. It is on glacial outwash plains, kames, and terraces. Slopes range from 15 to 25 percent, and is complex. Individual areas range mainly from 30 to 80 acres and are irregular in shape.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 2 inches, moderately decomposed pine needles
2 to 11 inches, very dark grayish brown loamy sand

Subsoil:
11 to 21 inches, yellowish brown loamy sand
21 to 25 inches, yellowish brown sand

Substratum:
25 to 72 inches, light yellowish brown sand

Included with this soil in mapping are small areas of moderately well drained Deerfield soils in depressions; and well drained, fine sandy Oakville soils. Also included are areas of gravelly Hinckley soils. Included areas are up to 5 acres and make up about 25 percent of the unit.

Soil Properties

Permeability: rapid or very rapid throughout the soil
Available water capacity (average for 40-inch profile): low or moderate
Soil reaction: very strongly acid to moderately acid in the surface and subsoil, and very strongly acid to slightly acid in the substratum
Surface runoff: medium
Erosion hazard: severe
Depth to water table: more than 6 feet
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Many areas of this map unit are used for agriculture, while some areas are being used for suburban development. Some areas are used as orchards or small woodlots. This map unit is a probable source of sand, and some sites are being excavated.

Cropland

This map unit is not suited to cultivated crops because of slope. On long, poorly vegetated slopes, this soil erodes easily. Use of sod-forming crops, and the return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is poorly suited to pasture. Slope causes a hazard of erosion if sod cover is not maintained. Proper stocking rates and timely deferment of grazing will help maintain sod cover and reduce the risk of erosion.

Recreation

This map unit is very limited for camp areas, picnic areas, playgrounds, and golf fairways because of the slope. Extensive grading and smoothing will be needed in most areas of this map unit for many of these uses. Water erosion is a management concern on paths and trails. Water control structures can be installed to divert flowing water away from these passages. Paths and trails should be routed along the contour of the slope or around this unit, where possible, to alleviate erosion.

Woodland

The potential productivity for northern red oak is moderate. This map unit is poorly suited for log landings, natural road surfaces, and mechanical planting because of the slope. Establishing log landings on gently sloping areas will provide for a more efficient operation. Also, the hazard of erosion on roads and trails is severe because of the slope. Water control structures may be installed to divert flowing water off and away from these passages. Roads should be designed to follow the slope contour, where possible. Trees to manage include red pine and Norway spruce.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the slope. Intensive excavation, grading and smoothing will be necessary unless less sloping included areas can be utilized. Disturbed building sites should be graded and revegetated quickly to reduce soil erosion. Nearby, gently sloping map units may be less costly to develop.

Septic Tank Absorption Fields

This map unit is very limited because of the filtering capacity of the soil and its hilly slope. Selecting less sloping sites with moderately rapid permeability in nearby areas may reduce this limitation. Inadequate filtering by the soil may result in the pollution of groundwater. Alternative septic system designs should be considered to insure adequate treatment of the effluent.

The capability subclass is 6e.

WO—Wonsqueak muck, ponded

This nearly level, very poorly drained soil formed in deposits of organic materials that are 16 to 51 inches thick over mineral soil material. It is in broad, depressional or basin-like swamps and bogs in the glaciated uplands or local outwash plains in the higher elevations of the Adirondack foothills. This soil receives runoff from adjoining areas, and remains ponded for extensive periods during the year. Slopes are less than 2 percent. Individual areas range from 10 to 100 acres and are broad and oval, or irregularly shaped. Small perennial streams either bisect or run along the edge of this mapping unit.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 13 inches, black muck

Subsurface layer:
13 to 31 inches, black muck

Substratum:
31 to 72 inches, mottled gray fine sandy loam

Included in mapping are small areas of deep organic soils, usually near the center of large areas of the unit, and small areas of organic material that is not as well decomposed as Wonsqueak. Also included are areas of sandy Allagash soils, fine sandy Lyme soils and recently deposited Fluvaquents on floodplains. Included areas are up to 10 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderately slow to moderately rapid in the organic layers, and moderate or moderately slow in the underlying mineral layers
Available water capacity (average for 40-inch profile): high
Soil reaction: very strongly acid to slightly acid in the organic material, and strongly acid to neutral in the mineral material
Surface runoff: very slow or ponded
Erosion hazard: none by water erosion, but is subject to wind erosion when the soil is dry
Depth to water table: 1 foot above the surface to .5 foot below the surface during September through July
Depth to bedrock: greater than 60 inches

Use and Suitability

Most areas of this map unit are covered with water tolerant grasses, shrubs, and small trees.

Cropland

This map unit is not suited to cultivated crops. Unless drained, the seasonal high water table interferes with cultivation. Many areas of this map unit are considered to be valuable wetland habitat.

Pasture

This map unit is poorly suited to pasture because of the high water table, soft ground conditions, and lack of suitable plants for forage.

Recreation

This map unit is very limited for most recreational uses because of the depth to saturated zone and ponding. This unit is very limited for golf fairways because of the high organic matter content. Higher, better drained areas should be considered for these uses. This unit may be a valuable wetland habitat.

Woodland

The potential productivity of this map unit is moderate for black spruce. This map unit is poorly suited for log landings and natural road surfaces because of wetness, ponding, and the low soil strength. A higher position on the landscape should be considered for log landings as well as other harvesting operations. There is also a high potential for seedling mortality because of wetness and extremely acid soil reaction. Only species that are wetness-tolerant should be selected for this site. This soil is not usually planted.

Dwellings with basements

This map unit is very limited for dwellings with basements because of wetness, ponding, and subsidence of the organic layers. Selecting sites in higher, better drained, nearby areas should be considered.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the restricted permeability, the depth to the saturated zone, ponding, and subsidence of the organic layers. Conventional septic systems will fail to function properly in this unit. A nearby, well drained site should be considered for this use.

The capability subclass is 7w.

WrB—Woodbridge loam, 3 to 8 percent slopes

This very deep, gently sloping, moderately well drained soil formed in compact glacial till. It is at the base of hills and on till plains in the uplands. Individual areas range mainly from 5 to 15 acres and are rectangular.

The typical sequence, depth, and composition of the layers of this map unit are as follows—

Surface layer:
0 to 5 inches, very dark grayish brown loam

Subsoil:
5 to 16 inches, mottled, dark brown loam
16 to 26 inches, mottled, dark brown fine sandy loam

Substratum:

26 to 72 inches, mottled, olive brown sandy loam

Included with this soil in mapping are small areas of well drained Paxton soils. Also included are areas of Charlton or Sutton soils, which do not have a compact substrata, and moderately deep Chatfield soils. Included areas are up to 5 acres and make up about 30 percent of the unit.

Soil Properties

Permeability: moderate in the mineral surface and subsoil, and slow or very slow in the substratum
Available water capacity (average for 40-inch profile): low or moderate
Soil reaction: very strongly acid to moderately acid throughout the soil
Surface runoff: medium
Erosion hazard: moderate
Depth to water table: 1.5 to 2.5 feet at some time during November through May
Depth to bedrock: greater than 60 inches
Flooding hazard: none

Use and Suitability

Most areas of this prime farmland soil are used for agriculture. Some areas are used as woodlots, orchards, or as sites for residential development.

Cropland

This soil is well suited to cultivated crops. It can be used to grow small grains, corn silage, hay, fruits and vegetables. On long slopes without vegetative cover, this soil may erode easily. Cross slope tillage, use of cover crops or sod-forming crops, and return of crop residues to the soil help to reduce erosion and promote good soil tilth.

Pasture

This map unit is very well suited to pasture. Proper stocking rates, nutrient management, and weed control will help increase forage yields. Deferment of grazing during wet periods can prevent erosion, compaction, and destruction of sod cover.

Recreation

This map unit is very limited for recreational use because of the slope. Some additional grading and smoothing will be needed, especially for playground use.

Woodland

The potential productivity for northern red oak is moderately high. This map unit is moderately suited to log landings and natural road surfaces because of the slope and relatively low soil strength in the upper soil profile. Additional fill material and grading may be necessary to build roads and efficiently process logs. There is also a moderate erodibility concern on roads and trails. Water control structures can be installed to divert flowing water away from these passages. Trees to manage include red pine and European larch.

Dwellings with basements

This map unit is very limited for dwellings with basements because of the depth to a saturated zone above the dense substratum. Tile drains around foundation footings, protective coatings on basement walls, and sloping the land away from buildings may help to reduce this limitation.

Septic Tank Absorption Fields

This map unit is very limited for septic systems because of the depth to a saturated zone above a denser substratum, particularly in the spring. Alternative septic system designs that properly filter effluent above the substratum, and drainage to intercept seepage should be considered.

The capability subclass is 2e.

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; for agricultural waste management; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of sand and gravel, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, slightly limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *well suited, moderately well suited, poorly suited,* and *unsuited* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

Assisting with this section were Richard Rasmussen, District Conservationist, Natural Resources Conservation Service; David Balbion, Cornell Cooperative Extension, Saratoga County; Steven Ropitsky, Farm Services Agency; and Dr. Shaw Reid, Cornell University Agronomy Department.

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 “Detailed Soil Map Units.” Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Farmland covered more than 83,000 acres in Saratoga County in 1990, according to the Census of Agriculture. Of this, about 53,300 acres was in cropland. Woodland and other land in farms comprised the remaining acreage (Cornell Cooperative Extension Service, 1989). The acreage in crops and pasture has decreased steadily during the past 25 years.

Erosion is a major hazard on a large percentage of the farmland in Saratoga County, according to a 1987 natural resource inventory (USDA, Soil Conservation Service, 1990). The hazard of erosion is related to the length and percent of slope of the land, the texture of the soil, the amount and intensity of rainfall, and the type and density of the plant cover.

Loss of soil through erosion causes a loss of nutrients and water, a reduction in available water capacity, the formation of gullies on hillsides, the deterioration of tilth, and the sedimentation of streams and reservoirs.

Productivity is reduced when the surface layer is lost and increasing amounts of the subsoil are incorporated into the plow layer, especially in such fine textured soils as Rhinebeck and Hudson soils or in soils with a dense substratum, such as Bernardston and Pittstown soils. Erosion also reduces the productivity of droughty soils such as Hoosic and Windsor soils, through loss of organic matter. Nassau, Manlius, and Farmington soils, which are shallow or moderately deep to bedrock, sometimes are permanently damaged by erosion. Silty soils, such as Unadilla and Scio soils, and fine sandy soils such as Oakville soils, are susceptible to erosion.

A plant cover reduces runoff and increases water infiltration. Conservation tillage, no-till farming, cover crops, crop residue in and on the surface, and crop rotations help to reduce erosion on short, irregularly sloping soils, such as Hudson, Oakville, and Nassau soils. Contour tillage, strip cropping, and terraces and diversions are better suited to soils with smooth, long, uniform slopes such as sloping Bernardston and Broadalbin soils.

Control of runoff is generally needed to reduce erosion on soils with slopes of more than 3 percent. Hudson, Unadilla, Scio, and Oakville soils all have a high content of silt and are easily eroded. Maintaining sod on these soils reduces erosion by slowing down runoff and promoting infiltration.

The effectiveness of a particular combination of conservation practices differs on different soils. Moreover, different combinations can be equally effective on the same soil. A local representative of the Natural Resources Conservation Service or Soil and Water Conservation District can assist in planning an effective combination of practices to reduce soil erosion.

Drainage is a major need on much of the acreage considered potential cropland in Saratoga County. Some soils are so wet that the production of crops common in the area is generally not possible without extensive drainage. Examples of these poorly drained and very poorly drained soils are Palms, Scarboro, Sun, Madalin, Limerick, and Saco soils. The extended periods of ponding and the difficulty in establishing an outlet for drainage make these soils generally unsuited to crops.

Seasonal wetness interferes with early planting, growth, and harvest of most crops on somewhat poorly drained soils, such as Mosherville, Massena, Burdett, Wareham, and Rhinebeck soils. Crops on these soils respond well to improved drainage. Yields on drained soils are often as high as those on naturally well drained soils.

Some areas of well drained and moderately well drained soils, such as Bernardston, Broadalbin, Sutton, Woodbridge, and Nunda soils, have spots of wetter soils that require random subsurface drains to make management of fields more uniform.

Some areas of sloping soils, such as Pittstown, Sutton, and Broadalbin soils, have wet spots. Drainage on these soils can be improved by interceptor drains that divert surface runoff and subsurface seepage.

Design of a drainage system varies with the kind of soil. A combination of surface and subsurface drainage is needed in most poorly drained and very poorly drained soils. Surface drainage can include open ditches, land smoothing, and bedding. Subsurface drains generally are corrugated plastic tubing. Establishing drainage outlets is often difficult and expensive because of the low position of these soils on the landscape.

Drains must be more closely spaced in slowly permeable soils than in more permeable soils. Subsurface drainage is slow in such soils as Hudson, Rhinebeck, and Cosad soils. These soils may also require surface drainage. Rapidly permeable soils, such as Deerfield and Wareham soils, respond well to subsurface drainage if an adequate outlet can be established.

Information on drainage systems is available at the Saratoga County Soil and Water Conservation District Office.

Surface stones, boulders, and outcrops of bedrock severely limit some soils for crops and pasture. They interfere with the operation of tillage and harvesting equipment. Small areas of stony soils are indicated on the soil map by a special symbol. Large areas are described in the map unit description for soils, which are named as very stony phases. Paxton, Bice, and Berkshire soils are the main soils in this survey area that may be stony enough to limit management. Farmington and Nassau soils are likely to have outcrops of bedrock that might interfere with tillage. Areas of soil sufficiently stony or rocky that are shown by special symbols on the soil map can be used only for permanent pasture, and even then, fertilizing, reseeding, and mowing will be difficult.

Available water capacity in the soil is important for crops. Some soils in the county tend to be droughty. Sandy and gravelly soils, soils that have a restricting layer, such as a very dense substratum, and soils that are shallow or moderately deep over bedrock tend to have a low capacity for moisture storage. Gravelly Hoosic soils, sandy Windsor and Oakville soils, and shallow Nassau soils all have sufficiently low available water capacity so that in most years crops will be moisture stressed during the growing season. Maintaining or increasing the level of organic matter and improving soil structure increase the available water capacity of these droughty soils. Green manure crops, crop residue, and manure build up the level of organic matter and improve soil structure.

Soil tilth is an important factor in the emergence of seedlings, the infiltration of water, and the ease of cultivation. Soils with good tilth usually have granular structure and are porous.

Excessive tillage tends to reduce organic matter content and breaks down soil structure. Some very deep, well drained or excessively drained, coarse textured soils, such as Hoosic or Hinckley, can be tilled with little or no damage to tilth. However, wetter, fine textured and moderately fine textured soils, for example, Hudson, Rhinebeck, and Scio soils, must be tilled at the proper moisture content to prevent deterioration of natural soil structure. Plowing or cultivating these soils when they are wet causes puddling and, when the soil is dry, surface crusting and clodding.

Fertility in the soils in the county is enhanced by lime and fertilizer. The amount needed depends on the natural content of lime and plant nutrients, the needs of the particular crop, and the level of desired yield. The organic matter content of the soil is one measure of fertility. The content in the surface layer of the soils in Saratoga County averages about 3 percent. Poorly drained and very poorly drained soils, such as Sun and Madalin soils, have a somewhat higher organic matter content.

Nitrogen is released from the organic matter, but much of it is in complex forms that cannot be used by plants until it is decomposed by microorganisms. Nitrogen fertilizer is needed to supplement the nitrogen from the organic in the soil. Management that builds up the supply of organic matter, such as the use of green manure crops, sod crops, and crop residue, improves the natural nitrogen content (Cornell Cooperative Extension Service, 1993).

Timeliness of nitrogen fertilization is important for maximum utilization by plants. Nitrogen can be lost through leaching in rapidly permeable soils, such as Hoosic soils, or by denitrification in wetter and less permeable soils, such as Rhinebeck soils. Best results are obtained when small amounts of nitrogen are applied at timely intervals; for example, at planting and then as side dressing while the crop is growing.

The soils in Saratoga County are generally low in natural phosphorous. Coarse textured Hoosic and Hinckley soils, for example, are very low in phosphorous. The addition of appropriate amounts of phosphate in the form of commercial fertilizer is essential for good plant growth.

Most of the soils have a low to medium level of available potassium, but such soils as Hudson, Rhinebeck, and Madalin soils, which have a clayey subsoil, are somewhat higher in potassium content. Even soils that have a fairly high content of potassium, however, require additional potassium for optimum yields of most crops.

Lime is needed in most soils in the survey area to raise the pH to an acceptable level for optimum yields of most crops. Additions of lime and fertilizer should be based on soil tests. For assistance in obtaining soil tests and recommendations, farmers and others should consult their local Cooperative Extension Agent. New research findings and fertilizer recommendations are available in the current edition of “Cornell Recommends for Integrated Field Crop Management”, prepared by the staff of the New York College of Agriculture, at Cornell University. In the absence of soil tests, these references, along with this publication, can be used as a guide in determining lime and fertility needs.

Special crops, including vegetable, orchard, nursery and landscaping crops, are an important part of agriculture in Saratoga County. Orchard crops are grown on various kinds of soil throughout the county, wherever climatic factors are favorable. Apples and pears are the principal orchard crop of commercial importance. There is also an increasing acreage of berry crops, Christmas trees, and sod.

The most recent information and suggestions for growing orchard and vegetable crops can be obtained from the local offices of the Cooperative Extension Service and the Natural Resources Conservation Service.

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 5. 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 map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

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

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in table 5 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.

The *productivity index* is a relative rating of the capacity of a soil to produce a specific plant under a defined management system. The index is determined from yield data on a few benchmark soils and is used to calculate yields, the net returns from crops, land assessment values, and taxes and to perform risk analysis when land management decisions are made.

Prime Farmland

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some parts of the survey area has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

The map units in the survey area that are considered prime farmland are listed in table 6. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in table 4. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described under the heading "Detailed Soil Map Units."

Forest Productivity and Management

John Hastings, Senior Forester, New York State Department of Environmental Conservation helped prepare this section.

Over 374,000 acres of Saratoga County are classified as forest land. Most of this area (356,200 acres) is commercial forest land. This represents nearly 70 percent of the land area of the county.

The primary species groups are white pine, hemlock, oaks, maples and other hardwoods. Although the softwood groups comprise only 21 percent of the land area, they represent 46 percent of the saw timber and 36 percent of the cubic feet volumes. Most of the forested land area (65 percent) is covered with Northern hardwoods (birch, beech, and maple) and other hardwood groups (aspen, swamp hardwoods, etc.). All hardwoods represent 32 percent of saw timber volumes and 46 percent of cubic feet volumes. The oak types occupy 13 percent of the land area, with saw timber and cubic feet volumes of 21 and 16 percent respectively. To summarize, the oaks and pine comprise most of the higher valued saw timber size class and often are found on the sandy, well drained sites. Hemlock and other hardwoods occupy deep soils of the lowlands and slopes, but are primarily low valued and utilized for cord wood and/or fuel wood.

Changes in saw timber volumes have increased 44 percent during the 12-year period of 1968 to 1980, thus indicating a maturing forest. Cubic feet volumes also show a marked increase of 28 percent. Total commercial forest land has increased only 1 percent during this same period (New York State Department of Environmental Conservation, 1981).

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 forest management.

Forest Productivity

In table 7, 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.

Forest Management

In tables 8, 9, and 10, interpretive ratings are given for various aspects of forest management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified forest 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 well 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 0.00 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 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 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 forest 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 *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 well suited, or poorly suited to this use.

Ratings in the columns *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 well 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 well suited, or poorly suited to this use.

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.

Recreation

The soils of the survey area are rated in tables 11 and 12 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. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and 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 11 and 12 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

Robert E. Myers, Wildlife Biologist, Natural Resources Conservation Service, Syracuse, New York helped to prepare this section.

Wildlife is an important resource in Saratoga County (New York State Department of Environmental Conservation, 1981). In the Hudson and Mohawk River Valley areas, the interspersion of corn, hay, and pasture that support dairy farms, fruit and vegetable farms, shrubby idle fields, and small oak-northern hardwood woodlots provide habitat for farmland and forest edge wildlife. This habitat supports a good population of white-tailed deer, woodcock, gray squirrels, cottontail rabbits, gray fox, raccoon and songbirds. There is a moderate population of ruffed grouse, wild turkey, and coyote with limited populations of ring-necked pheasants and European hare.

The large expanses of open water and wetlands associated with the Barge Canal, Mohawk River, Hudson River and tributaries with adjacent farmland creates habitat for a fairly large population of waterfowl, as well as marsh and shorebirds.

The Adirondack foothills area in the northwestern portion of the county is predominantly northern hardwoods and white pine forests interspersed with a few active dairy farms and a large number of idle farm fields that have grown up to aspen, gray birch and paper birch. The land use and vegetation supports a moderate to good population of mature forest wildlife such as black bear, otter, bobcat, fisher, coyote, and gray fox with moderate population of farmland and forest edge wildlife such as white-tailed deer, cottontail rabbit, ruffed grouse, and woodcock. A large number of beaver colonies have developed in association with the growth of aspen adjacent to small watercourses.

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 13, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants. 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, 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 fescue, lovegrass, bromegrass, clover, and alfalfa.

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 bluestem, goldenrod, beggarweed, wheatgrass, and grama.

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, sweetgum, apple, hawthorn, dogwood, hickory, blackberry, and blueberry. Examples of fruit-producing shrubs that are suitable for planting on soils rated *good* are Russian-olive, autumn-olive, and crabapple.

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

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, wildrice, saltgrass, cordgrass, rushes, sedges, and reeds.

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, and 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 bobwhite quail, pheasant, meadowlark, field sparrow, cottontail, 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, woodcock, thrushes, woodpeckers, squirrels, gray fox, 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.

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 estimated data and test data in the “Soil Properties” section.

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 within a depth of 5 or 6 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 grain-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 or 6 feet of the surface, soil wetness, depth to a seasonal high water table, 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 14 and 15 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

Tables 16 and 17 show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a 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

Tables 18 and 19 give information about the soils as potential sources of gravel, sand, topsoil, reclamation material, and roadfill. Normal compaction, minor processing, and other standard construction practices are assumed.

Sand and *gravel* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 18, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good, fair,* or *poor* as potential sources of sand and gravel. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is an unlikely source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

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

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.

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).

Water Management

Table 20 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the 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.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey. The data and the estimates of soil and water features, listed in tables, are explained on the following pages.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine grain-size distribution, plasticity, and compaction characteristics. These results are reported in table 21.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties shown in the tables include the range of grain-size distribution and Atterberg limits, the engineering classification, and the physical and chemical properties of the major layers of each soil. Pertinent soil and water features also are given.

Engineering Index Properties

Table 21 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, 1998) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 1998).

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. The AASHTO classification for soils tested, with group index numbers in parentheses, is given in table 21.

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.

Engineering Properties of Geologic Deposits

Prepared following the format previously used by the senior soil engineer, New York State Department of Transportation, Soil Mechanics Bureau.

This section discusses the engineering characteristics of the various unconsolidated geologic deposits in Saratoga County and their relation to soils. This discussion will help planners, designers, engineers, contractors, and others associated with construction projects involving earthy materials. It should be noted that terms used in soil engineering do not always mean the same as similar soil science terms.

The following geologic deposits occur in Saratoga County: glacial till, glacial outwash, lacustrine deposits, alluvial deposits, and organic deposits. The engineering significance of each geologic deposit is influenced to a great extent by its mode of deposition, which in turn determines the texture of the material and the internal structure of the landform. Other influences are the position in the landscape and the position of the water table. In Saratoga County, the geologic deposits are divided into the following categories: deep till deposits, shallow-to-rock deposits, stratified coarse-grained deposits, stratified fine-grained deposits, and organic deposits.

Deep till deposits are unstratified, highly variable mixtures of all particle sizes ranging from rock fragments to clay. This material was scoured and transported from nearby sources by glacial ice and deposited as ground moraines or end moraines. Bedrock is usually greater than five feet below the surface, but in some places the bedrock is closer to the surface and may outcrop along the side of some hills. The individual rock and mineral fragments in the soil generally reflect the types of bedrock in the immediate area. Some soils formed in these deposits are Charlton, Paxton, Becket, Bernardston, Broadalbin and Nunda, along with their wetter associates. These soils are the most dense and compact of the unconsolidated deposits in the county. Most of the tills have been subjected to the compactive weight of overriding ice. Deep till soils are on slopes ranging from nearly level to very steep, with most being nearly level to strongly sloping. Many landscapes are such that cut and fill earthwork is involved in most construction. The soils usually provide stable, relatively incompressible foundations for engineering works. Fill material from these deposits when properly compacted generally provide stable embankments. Steep cut slopes often are subject to surface sloughing and erosion.

Shallow-to-rock deposits are unstratified mixtures of glacially transported materials deposited as a thin veneer over the bedrock. The soil is usually 0.5 to 5 feet thick, with rock outcrops common in some areas. The landforms and topography are controlled by the underlying bedrock. Soils formed in glacial till over bedrock of metamorphic origin are the Tunbridge, Lyman, Woodstock, Chatfield, and Hollis soil series. The Manlius and Nassau soils formed in glacial till over slate and shale bedrock. The Galway and Farmington series formed in glacial till over limestone and calcareous sandstone bedrock. The bedrock of the county is described in the section “Physiography and Geology”.

The primary engineering concerns relate to the underlying bedrock and groundwater conditions. Fill material is limited in quantity because of the closeness of bedrock.

Stratified coarse-grained deposits include materials dominated by gravel and sand, sorted by glacial melt waters into layered or stratified deposits. Included in this category are the coarser materials deposited by fluvial action. They occupy such geologic landforms as outwash plains and terraces, the coarser portion of deltas, and floodplains. The strata within these deposits may be well sorted or poorly sorted and range from cobbles to silt in size. The deposits are usually loose and porous, and have moderately rapid to rapid permeability.

Colton, Hinckley, Hoosic, and Chenango soils formed on gravelly eskers, outwash plains and terraces. The Allagash, Windsor, Oakville, and their related series formed in sandy materials on outwash plains and beach ridges. Udipsamments are in sandy dredged material.

Coarse-grained deposits generally have relatively high strength and low compressibility. Because of their loose and porous nature, most of these deposits are not highly erodible. They are subject to settlement when vibrated.

These deposits of gravel and sand have many uses as a construction material. Depending on gradation, soundness, and plasticity, they may be used for such purposes as fill material for highway embankments, in parking areas, and on construction sites where this material is needed to decrease the stress on underlying soils. They may also be used as subbase for pavements, wearing surfaces for driveways, parking lots, and some roads; material for highway shoulders; and free draining backfill for structures and pipes. In addition, they may be used as outside shells of dams for impounding water and as slope protection blankets to drain and help stabilize wet, cut slopes, and as general sources of sand and gravel.

Stratified fine-grained deposits consist of fine-grained sediment transported by glacial melt waters and deposited in quiet proglacial lakes and ponds. Some are floodplain soils on more recent slack water deposits. These soils have distinct layers or laminations generally of silt- and clay-sized particles. Although these deposits are mostly silt, they are generally clayey enough to make them plastic and sticky.

Hudson, Rhinebeck, and Madalin series formed in deep, lake laid silt and clay deposits. Elmridge, Shaker, Claverack, Cosad, and Cheektowaga formed in shallow loamy or sandy deposits over silt and clay. Unadilla, Scio, and Raynham formed in deep silty terraces. Tioga, Teel, Limerick, Saco, and Fluvaquents are alluvial and on flood plains.

Because of their finer texture and higher moisture contents, these deposits have relatively low strength. They are generally highly compressible and in some areas, continue to settle over long periods. If the soils are high in silt or very fine sand content, they are less compressible but highly erodible and susceptible to frost. The soils on flood plains are subject to flooding.

The fine-grained deposits are difficult to use for engineering works, especially where flat, since they usually have a high water table and are subject to ponding. Sites for embankments and heavy structures or buildings on all soils formed in these finer sediments must be investigated for strength and settlement characteristics and effects of groundwater.

Organic deposits are, for the most part, accumulations of plant remains. In places, they include a minimal amount of mineral soil. The soils are very poorly drained and are in depressions and bogs. They are ponded with water most of the year.

Wonsqueak and Palms series formed in organic material that is generally 16 to 51 inches deep over loamy mineral material. Soils formed in organic deposits are unsuited to foundations or embankments because they are wet, have low strength, and are highly compressible. Generally, removing the organic material to suitable underlying material and backfilling with suitable material are needed.

Physical Properties

Table 22 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.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In table 22, 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.

Saturated hydraulic conductivity 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 (in/hr), 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 22, 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 22 as the K factor (Kw) 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 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.

Chemical Properties

Table 23 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.

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.

Soil Features

Table 24 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the thickness of the restrictive layer, which significantly affects the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a 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.

Water Features

Table 25 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 25 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.

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 25 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.

Physical and Chemical Analyses of Selected Soils

The results of physical analysis of several typical pedons in the survey area are given in table 22 and the results of chemical analysis in table 23. The data are for soils sampled at carefully selected sites. Unless otherwise indicated, the pedons are typical of the series. They are described in the section “Soil Series and Their Morphology.” Soil samples were analyzed by the Cornell University Laboratory.

Most determinations, except those for grain-size analysis and bulk density, were made on soil material smaller than 2 millimeters in diameter. Measurements reported as percent or quantity of unit weight were calculated on an ovendry basis. The methods used in obtaining the data are indicated in the list that follows. The codes in parentheses refer to published methods (USDA, 1996).

Coarse materials—(2-75 mm fraction) weight estimates of the percentages of all material less than 75 mm (3B1).

Coarse materials—(2-250 mm fraction) volume estimates of the percentages of all material greater than 2 mm (3B2).

Sand—(0.05-2.0 mm fraction) weight percentages of material less than 2 mm (3A1).

Silt—(0.002-0.05 mm fraction) pipette extraction, weight percentages of all material less than 2 mm (3A1).

Clay—(fraction less than 0.002 mm) pipette extraction, weight percentages of material less than 2 mm (3A1).

Carbonate clay—(fraction less than 0.002 mm) pipette extraction, weight percentages of material less than 2 mm (3A1d).

Water retained—pressure extraction, percentage of ovendry weight of less than 2 mm material; $^1/_3$ or $^1/_{10}$ bar (4B1), 15 bars (4B2).

Water-retention difference—between $^1/_3$ bar and 15 bars for whole soil (4C1).

Water-retention difference—between 1/10 bar and 15 bars for whole soil (4C2).
Bulk density—of less than 2 mm material, saran-coated clods field moist (4A1a), 1/3 bar (4A1d), ovendry (4A1h).
Moist bulk density—of less than 2 mm material, cores (4A3).
Moist bulk density—of less than 2 mm material, compliant cavity (4A5).
Linear extensibility—change in clod dimension based on whole soil (4D).
Organic carbon—wet combustion. Walkley-Black modified acid-dichromate, ferric sulfate titration (6A1c).
Organic carbon—dry combustion (6A2d).
Total nitrogen—Kjeldahl (6B3).
Extractable cations—ammonium acetate pH 7.0, ICP; calcium (6N2i), magnesium (6O2h), sodium (6P2f), potassium (6Q2f).
Extractable cations—ammonium acetate pH 7.0, EDTA-alcohol separation; calcium (6N2a), magnesium (6O2a); flame photometry; sodium (6P2a), potassium (6Q2a).
Extractable acidity—barium chloride-triethanolamine IV (6H5a).
Cation-exchange capacity—ammonium acetate, pH 7.0, steam distillation (5A8b).
Cation-exchange capacity—sum of cations (5A3a).
Effective cation-exchange capacity—sum of extractable cations plus aluminum (5A3b).
Base saturation—ammonium acetate, pH 7.0 (5C1).
Base saturation—sum of cations, TEA, pH 8.2 (5C3).
Reaction (pH)—1:1 water dilution (8C1f).
Reaction (pH)—saturated paste (8C1b).
Reaction (pH)—potassium chloride (8C1g).
Reaction (pH)—sodium fluoride (8C1d).
Reaction (pH)—calcium chloride (8C1f).
Aluminum—potassium chloride extraction (6G9c).
Aluminum—acid oxalate extraction (6G12b).
Iron—acid oxalate extraction (6C9b).
Silica—acid oxalate extraction (6V2b).
Sesquioxides—dithionate-citrate extract; iron (6C2h), aluminum (6G7b), manganese (6D2g).
Soil resistivity—saturated paste (8E1).
Total soluble salts—estimate from resistivity (8A2).
Total soluble salts—estimate from conductivity (8D5).
Carbonate as calcium carbonate—(fraction less than 2 mm [80 mesh]) manometric (6E1h).
Carbonate as calcium carbonate—(fraction less than 20 mm) manometric (6E4).
Gypsum—precipitation in acetone (6F1a).
Soluble ions—acid titration, saturated paste; carbonate (6I1b), bicarbonate (6J1b).
Soluble ions—anion chromatograph, saturated paste; chloride (6K1f), sulfate (6L1f), nitrate (6M1f); fluoride (6U1d); nitrite (6W1d).
Electrical conductivity—saturation extract (8A3a).
Sodium adsorption ratio (5E).
Extractable phosphorus—Bray P-1 (6S3).
Available phosphorus—(method of reporting laboratory).

Relationship between soil series and their parent material, landscape position, and drainage

In table 26 the soils in the county are grouped according to a number of factors. The first of these is landscape position. Landscape positions in the county are upland plains, lacustrine plains, outwash plains, moraines and beach ridges, flood plains, swamps and bogs. The types of parent material in the county are glacial till, outwash sand and gravel, lacustrine deposits, alluvial deposits, and organic material. Soils that formed in similar kinds of parent material are grouped according to their depth to bedrock.

The soils are further grouped on the basis of the texture and morphology of the parent material. For some soils the kinds of parent material and depth to bedrock are similar, but the mean annual soil temperature varies. These soils are divided into two classes—frigid and mesic, as indicated in the table by elevation above or below 1000 feet elevation. Charlton and Bice soils are examples. Charlton soils are mesic, and Bice soils are frigid.

Finally, the soils are assigned to drainage classes. Soils having the same kind of parent material, depth and landscape position, but differing in drainage class, form a soil catena. Hudson, Rhinebeck, and Madalin soils are an example. Some soils are in more than one drainage class. Wareham soils are an example.

Table 26 supplements the section “Formation of the Soils”. Detailed information about the morphology and character of each soil is given in the section “Soil Series and their Morphology”.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (USDA, 1975, 1998 and 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 27 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

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

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

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalf*, the suborder of the Alfisols that has a udic moisture regime).

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

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, mineral content, soil temperature regime, soil depth, and reaction. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, nonacid, mesic Typic Hapludalfs.

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

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each series. A pedon, a small three-dimensional area of soil that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the “Soil Survey Manual” (USDA, 1993). Many of the technical terms used in the descriptions are defined in “Soil Taxonomy” (USDA, 1975, 1999) and in “Keys to Soil Taxonomy” (USDA, 1990). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Allagash Series

Soils of the Allagash series are very deep and well drained. They formed in glacial outwash derived dominantly from granitic rocks. They are on outwash plains and terraces in the Adirondack foothills. Slopes range from 0 to 35 percent.

Allagash soils are near gravelly Colton soils, and Berkshire, Becket and Bice soils, which formed in glacial till. Also nearby are very poorly drained

Wonsqueak soils, which have more than 16 inches of organic deposits over mineral soil.

Typical pedon of Allagash fine sandy loam, strongly sloping, in the town of Providence, 1,700 feet north-northwest of South Line Road, 0.7 mile west of Antioch Road, along the north boundary of a sand and gravel borrow pit; USGS Galway topographic quadrangle; (43 degrees, 05 minutes, 31 seconds north latitude, 74 degrees, 00 minutes, 24 seconds west longitude) NAD 1927:

Oe—0 to 1 inch; black (5YR 2.5/1) moderately decomposed organic material.

E —1 to 3 inches; light brownish gray (10YR 6/2) fine sandy loam; weak very fine granular structure; very friable; common fine roots; very strongly acid; abrupt smooth boundary.

Bh—3 to 5 inches; very dusky red (2.5YR 2.5/2) loam; moderate fine subangular blocky structure; friable; strongly smeary; many fine and medium roots; very strongly acid; clear wavy boundary.

Bs—5 to 19 inches; yellowish red (5YR 4/6) loam; weak fine subangular blocky structure; friable; moderately smeary; many fine and medium roots; strongly acid; clear wavy boundary.

BC—19 to 35 inches; yellowish brown (10YR 5/6) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine, few medium roots; 5 percent rock fragments; strongly acid; clear wavy boundary.

2C1—35 to 44 inches; light olive brown (2.5Y 5/6) fine sand; massive; very friable; moderately acid; clear smooth boundary.

2C2—44 to 72 inches; light yellowish brown (2.5Y 6/4) fine sand; massive; friable; slightly acid.

The thickness of the solum ranges from 15 to 35 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments make up 0 to 10 percent by volume of the soil above a depth of 40 inches. Reaction ranges from very strongly acid through slightly acid throughout the soil.

The E horizon has hue of 10YR, value of 5 or 6, and chroma of 1 or 2. Texture is fine sandy loam through silt loam.

The Bh horizon has hue of 2.5YR or 5YR, value of 2 through 4, and chroma of 2 through 6. The Bs horizon has hue of 5YR or 7.5YR, value of 4 or 5, and chroma of 6 through 8. Texture is fine sandy loam through silt loam. Below a depth of 10 inches the texture is fine sandy loam or loam. The horizon has granular or subangular structure and is friable or very friable.

The BC horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 4 through 6. Texture is fine sandy loam or loam. The horizon has granular or subangular structure and is friable or very friable.

The 2C horizon has hue of 2.5Y or 5Y, value of 5 or 6, and chroma of 2 through 6. It is loamy fine sand, loamy sand, fine sand or sand in the fine earth fraction.

Allis Series

Soils of the Allis series are moderately deep and poorly drained. They formed in glacial till that is 20 to 40 inches thick over soft, acid shale bedrock. Slopes range from 0 to 3 percent.

Allis soils are in a drainage sequence with somewhat poorly drained Hornell soils and well drained to excessively drained Manlius soils. They are near deep Bernardston, Pittstown, and Ilion soils.

Typical pedon of Allis silt loam, in the Town of Ballston, 50 feet east of Lake Road, 1 mile south of Outlet Road; USGS Round Lake topographic quadrangle; (42 degrees, 56 minutes, 57 seconds north latitude, 73 degrees, 49 minutes, 38 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; dark grayish brown (10YR 4/2 and 2.5YR 4/2) silt loam; moderate fine granular structure; friable; many fine roots; 3 percent rock fragments; strongly acid; abrupt smooth boundary.

Bg1—9 to 16 inches; gray (5Y 5/1) silty clay; many (50%) fine and medium prominent strong brown (7.5YR 5/8) mottles; gray (N 5/) prism faces; moderate coarse prismatic structure parting to weak coarse angular blocky; firm; thin patchy silt and clay coats on surfaces of a few peds; common fine roots; 10 percent channers; strongly acid; clear wavy boundary.

Bg2—16 to 25 inches; gray (5Y 5/1) very channery silty clay; many (50%) fine and medium prominent strong brown (7.5YR 5/8) mottles; gray (N 5/) prism faces; weak coarse prismatic structure parting to strong thick platy; firm; few fine roots; 50 percent channers; strongly acid; clear smooth boundary.

Cr—25 to 35 inches; gray (5Y 5/1) rippable thin-bedded decomposing shale bedrock.

R—35 inches, gray soft shale bedrock.

The thickness of the solum and depth to bedrock range from 20 to 40 inches. The content of rock fragments commonly ranges from 2 to 35 percent in the surface and subsoil but range up to 60 percent in some layers. Reaction ranges from extremely acid to moderately acid throughout.

The Ap horizon has hue of 10YR or 2.5Y, value and chroma ranging from 2 through 4. The texture is silt loam or silty clay loam.

The Bg horizon has hue of 10YR through 5Y, value of 4 through 6 and chroma of 0 through 6, and has many distinct or prominent mottles. Texture is silty clay loam or silty clay in the fine earth fraction. Structure is angular blocky, subangular blocky or platy often within prisms.

The C horizon, where present, has color and texture similar to the B horizon, and rock fragment content up to 60 percent by volume.

Becket Series

Soils of the Becket series are very deep and well drained. They are loamy soils that are underlain by compact sandy glacial till, in the Adirondack foothills. Slopes range from 3 to 35 percent.

Becket soils are in a drainage sequence with moderately well drained Skerry soils and poorly drained Lyme soils. They are near Berkshire soils, which have a more friable and more permeable substratum; moderately deep Tunbridge soils; and shallow Lyman soils. Also nearby are gravelly Colton soils and loamy over sandy Allagash soils on outwash plains and terraces.

Typical pedon of Becket sandy loam, strongly sloping, very bouldery, in the Town of Greenfield, 100 feet south of Ormsbee Road, 2 miles north-west of Ballou Road (logging landing); USGS Porter Corners topographic quadrangle; (43 degrees, 10 minutes, 54 seconds north latitude, 73 degrees, 56 minutes, 20 seconds west longitude) NAD 1927:

Oi—0 to 2 inches; slightly decomposed mat of hardwood leaves.

A—2 to 4 inches; black (5YR 2.5/1) sandy loam; weak fine granular structure; 5 percent rock fragments; friable; extremely acid; clear smooth boundary.

E—4 to 5 inches; reddish gray (5YR 5/2) sandy loam; weak fine granular structure; friable; 5 percent rock fragments; extremely acid; abrupt smooth boundary.

Bh—5 to 7 inches; dark brown (7.5YR 3/2) loam; weak fine granular structure; very friable; 5 percent rock fragments; very strongly acid; abrupt smooth boundary.

Bs—7 to 15 inches; dark brown (7.5YR 3/4) sandy loam; weak fine granular structure; friable; 5 percent rock fragments; very strongly acid; clear smooth boundary.

BC1—15 to 27 inches; dark brown (10YR 3/3) gravelly sandy loam; weak medium subangular blocky structure; friable; 30 percent rock fragments; very strongly acid; clear wavy boundary.

BC2—27 to 32 inches; yellowish brown (10YR 5/4) sandy loam; moderate medium subangular blocky structure; firm; 10 percent rock fragments; very strongly acid; clear wavy boundary.

Cd—32 to 72 inches; olive brown (2.5Y 4/4) gravelly sandy loam; few fine faint yellowish brown (10YR 5/4) and few fine distinct strong brown (7.5YR 5/8) mottles; moderate thick platy structure; 20 percent of plates or lenses are loamy sand; very firm and brittle; 15 percent rock fragments; very strongly acid.

The thickness of the solum ranges from 18 to 36 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 30 percent in the solum and from 5 to 40 percent in the substratum. Reaction is extremely acid to slightly acid in the solum, and very strongly acid to slightly acid in the substratum.

The A horizon has hue of 5YR through 10YR, value of 2 through 4 and chroma of 1 through 3, and is up to 5 inches thick. Texture is fine sandy loam, loam, or sandy loam in the fine earth fraction.

The E horizon has hue of 5YR through 2.5Y, with value of 4 through 7, and chroma of 1 or 2. Texture is fine sandy loam, sandy loam, or loamy sand in the fine earth fraction.

The Bhs or Bh horizon has hue of 2.5YR through 7.5YR, value of 2 or 3, and chroma of 1 through 3. Texture is dominantly fine sandy loam, but includes loam and sandy loam in the fine earth fraction.

The Bs horizon has hue of 2.5YR through 7.5YR, and value and chroma of 3 through 8. Texture is fine sandy loam or sandy loam in the fine earth fraction.

The BC horizon has hue of 10YR through 5Y, value and chroma of 3 through 6. Texture is fine sandy loam, sandy loam, loamy fine sand, or loamy sand in the fine earth fraction.

The Cd horizon has hue of 10YR through 5Y, value of 4 through 7, and chroma of 2 through 6. Texture is fine sandy loam or sandy loam in the fine earth fraction, but includes loamy sand lenses, which can occupy up to 50 percent of the horizon.

Berkshire Series

Soils of the Berkshire series are very deep and well drained. They formed in bouldery glacial till in the Adirondack foothills. Slopes range from 3 to 35 percent.

Berkshire soils are in a drainage sequence with moderately well drained Skerry soils and poorly drained Lyme soils. They are near Becket soils, which have a compact, slowly permeable substratum; moderately well drained Schroon soils; moderately deep Tunbridge soils; and shallow Lyman soils. Also nearby are gravelly Colton soils and loamy over sandy Allagash soils on outwash plains and terraces.

Typical pedon of Berkshire loam, steep, very bouldery, in the Town of Edinburg, 10 feet northeast of a logging access road, 2.4 miles south of Turner Road, 0.9 mile east of South Shore Road (County Route 7); USGS Edinburg topographic quadrangle; (43 degrees, 14 minutes, 46 seconds north latitude, 74 degrees, 02 minutes, 51 seconds west longitude) NAD 1927:

Oe—0 to 2 inches; moderately decomposed mat of hardwood leaves and pine needles.

A—2 to 5 inches; black (5YR 2.5/1) loam; moderate fine and medium subangular blocky structure; very friable; many fine roots; 5 percent rock fragments; extremely acid; abrupt smooth boundary.

E—5 to 6 inches; brown (7.5YR 5/2) fine sandy loam; moderate medium granular structure; friable; many fine and medium roots; 5 percent rock fragments; extremely acid; abrupt smooth boundary.

Bhs—6 to 9 inches; dark reddish brown (5YR 3/3) loam; weak fine and medium subangular blocky structure; friable; moderately smeary; many fine, common medium roots; 10 percent rock fragments; extremely acid; gradual irregular boundary.

Bs—9 to 21 inches; dark brown (7.5YR 3/4) and dark yellowish brown (10YR 4/6) loam; weak fine subangular blocky structure; friable; slightly smeary; common fine roots; 10 percent rock fragments; very strongly acid; clear wavy boundary.

BC1—21 to 30 inches; dark yellowish brown (10YR 4/4) fine sandy loam; few coarse dark brown (7.5YR 3/4) root stains; weak medium subangular blocky structure; friable; 10 percent rock fragments; strongly acid; clear wavy boundary.

BC2—30 to 32 inches; light olive brown (2.5Y 5/4) gravelly fine sandy loam; few fine faint light olive brown (2.5Y 5/6) stains; weak fine subangular blocky structure; friable; 20 percent rock fragments; strongly acid; clear smooth boundary.

C—32 to 72 inches; yellowish brown (10YR 5/4) gravelly fine sandy loam; few fine faint strong brown (7.5YR 5/6) stains; weak medium platy structure; friable, grading to firm; 20 percent rock fragments; strongly acid.

The thickness of the solum ranges from 16 to 36 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 15 percent by volume in the A horizon and from 10 to 30 percent in the subsoil and substratum. Reaction throughout the soil is extremely acid to moderately acid.

The A horizon has hue of 5YR through 10YR, value of 2 or 3, and chroma of 0 through 2, and is up to 4 inches thick. Texture is sandy loam to loam in the fine earth fraction.

The E horizon has hue of 2.5YR through 2.5Y, value of 4 through 6, and chroma of 0 through 2. Texture is sandy loam to loam in the fine earth fraction.

The Bh horizon has hue of 5YR through 10YR, value of 2 through 5, and chroma of 2 through 4. The Bs horizon has hue of 7.5YR through 10YR, value of 3 or 4, and chroma of 4 through 6. Texture is sandy loam to loam in the fine earth fraction.

The BC horizon has hue of 10YR through 5Y, value and chroma of 3 through 6. Texture is sandy loam to loam in the fine earth fraction.

The C horizon has hue of 10YR or 2.5Y, value of 3 through 5, and chroma of 2 through 4. Texture is sandy loam to loam in the fine earth fraction. Consistence is friable or firm.

Bernardston Series

Soils of the Bernardston series are very deep and well drained, and have a dense substratum. They formed in compact glacial till on the sides and tops of hills in the uplands. Slopes range from 3 to 25 percent.

Bernardston soils are in a drainage sequence with moderately well drained Pittstown soils and very poorly drained Sun soils. Bernardston soils are near moderately deep Manlius, Hornell, and Allis soils and shallow Nassau soils. They are also near sandy Oakville or Windsor soils, and clayey Hudson and Rhinebeck soils.

Typical pedon of Bernardston silt loam, 3 to 8 percent slopes, in the Town of Stillwater, 40 feet south of Turner Road, 0.3 mile west of County Route 70, in a cornfield; USGS Quaker Springs topographic quadrangle; (43 degrees, 00 minutes, 35 seconds north latitude, 73 degrees, 42 minutes, 06 seconds west longitude) NAD 1927:

Ap—0 to 10 inches; brown (10YR 4/3) silt loam; weak fine granular structure; friable; fine roots; 5 percent rock fragments; moderately acid; abrupt smooth boundary.

Bw1—10 to 16 inches; dark yellowish brown (10YR 4/6) channery loam; weak fine subangular blocky structure; friable; few fine roots; 20 percent rock fragments; moderately acid; clear smooth boundary.

Bw2—16 to 26 inches; yellowish brown (10YR 5/6) channery loam; weak medium subangular blocky structure; friable; 25 percent rock fragments; moderately acid; clear smooth boundary.

Cd—26 to 72 inches; olive brown (2.5Y 4/4) channery silt loam; weak medium platy structure; firm; 20 percent rock fragments; moderately acid.

The thickness of the solum ranges from 20 to 30 inches and commonly corresponds to the depth to the dense substratum. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 15 percent by volume in the surface layer and from 15 to 25 percent in the subsoil and substratum. Reaction ranges from very strongly acid to moderately acid throughout.

The Ap horizon has hue of 7.5YR through 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture ranges from very fine sandy loam to silt loam in the fine earth fraction.

The Bw horizon has hue of 7.5YR through 2.5Y, value of 4 or 5, and chroma of 2 through 6. Texture ranges from very fine sandy loam to silt loam in the fine earth fraction. Structure is granular or subangular blocky, and the horizon is friable or very friable.

The Cd horizon has hue of 2.5Y or 5Y, value of 4 or 5, and chroma of 2 through 4. Texture ranges from very fine sandy loam to silt loam in the fine earth fraction. The horizon is massive or has platy structure.

Bice Series

Soils of the Bice series are very deep and well drained. They formed in stony glacial till in the Adirondack foothills. Slopes range from 3 to 35 percent.

Bice soils are in a drainage sequence with moderately well drained Schroon soils and poorly drained Lyme soils. They are near Berkshire soils, which are reddish brown in the subsoil, and Woodstock soils which are 10 to 20 inches deep to bedrock. Also nearby are gravelly Colton and loamy over sandy Allagash soils on outwash plains and terraces.

Typical pedon of Bice loam, strongly sloping, stony, in the Town of Edinburg, 100 feet southeast of Tenantville Road, 200 feet southwest of the intersection with Airport Road, (10 feet northeast of stone wall); USGS Edinburg topographic quadrangle; (43 degrees, 14 minutes, 00 seconds north latitude, 74 degrees, 07 minutes, 17 seconds west longitude) NAD 1927:

Ap—0 to 5 inches; dark yellowish brown (10YR 3/4) loam; weak fine granular structure; very friable; many fine and medium roots; 5 percent rock fragments; very strongly acid; clear smooth boundary.

Bw1—5 to 18 inches; dark yellowish brown (10YR 4/4) and strong brown (7.5YR 5/6) fine sandy loam; moderate medium subangular blocky structure; friable; many fine and medium roots; 10 percent rock fragments; very strongly acid; clear smooth boundary.

Bw2—18 to 25 inches; strong brown (7.5YR 4/6) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 10 percent rock fragments; very strongly acid; clear smooth boundary.

BC—25 to 30 inches; dark yellowish brown (10YR 4/6) fine sandy loam; weak fine subangular blocky structure; firm; few fine roots; 10 percent rock fragments; very strongly acid; clear smooth boundary.

C—30 to 72 inches; grayish brown (10YR 5/2) fine sandy loam; massive; firm; 10 percent rock fragments; very strongly acid.

The thickness of the solum ranges from 28 to 34 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 25 percent by volume throughout the soil. Reaction throughout the soil is very strongly acid through moderately acid.

The Ap horizon has hue of 10YR, value of 3 or 4 and chroma of 2 through 4. Unplowed areas have a thin A horizon with hue of 10YR, value of 2 or 3, and chroma of 1 or 2. Texture is loam or fine sandy loam in the fine earth fraction.

The upper part of the B horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 through 6. The lower part of the B horizon and the BC horizon have hue of 10YR or 2.5Y, value of 4 through 6, and chroma of 3 through 6. Texture is sandy loam through loam in the fine earth fraction. Structure is weak granular or subangular blocky.

The C horizon has hue of 10YR or 2.5Y, value of 4 through 6, and chroma of 2 through 4. Texture is sandy loam, fine sandy loam or loam in the fine earth fraction. Structure is weak platy, or the horizon is massive.

Broadalbin Series

Soils of the Broadalbin series are very deep and well drained to moderately well drained, and have a dense lower subsoil and substratum. They formed in a loamy eolian mantle and underlying glacial till. They are on the sides and tops of hills in the uplands. Slopes range from 3 to 25 percent.

Broadalbin soils are in a drainage sequence with somewhat poorly drained Mosherville soils, and poorly drained or very poorly drained Sun soils. Broadalbin soils are near Charlton, Sutton, Nunda, and Burdett soils which do not have a dense substratum, moderately deep Galway or Manlius soils, and shallow Farmington or Nassau soils:

Typical pedon of Broadalbin silt loam, 3 to 8 percent slopes, in the Town of Ballston, 200 feet east of Scotchbush Road (County Route 56), 1.25 miles north of the Saratoga County/Schenectady County line (S64 NY-46-8); USGS Burnt Hills topographic quadrangle, (42 degrees, 56 minutes, 23 seconds north latitude, 73 degrees, 54 minutes, 48 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine and medium granular structure; friable; many fine roots; 10 percent rock fragments; neutral (limed); abrupt smooth boundary.

Bw—9 to 23 inches; yellowish brown (10YR 5/6) silt loam; weak fine subangular blocky structure; friable; common fine roots; many fine and coarse pores; 10 rock fragments; slightly acid; abrupt irregular boundary.

2E —23 to 30 inches; grayish brown (2.5Y 5/2) fine sandy loam; few medium distinct yellowish brown (10YR 5/6) mottles; weak thin platy structure; firm; few fine roots; common fine pores; 10 percent rock fragments; slightly acid; abrupt irregular boundary.

2Bx—30 to 43 inches; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; few medium faint yellowish brown (10YR 5/6) mottles; weak very coarse prismatic structure parting to weak thin and medium platy; very firm; slightly brittle; very few fine roots; common fine pores; 25 percent rock fragments; slightly acid; gradual irregular boundary.

2C—43 to 74 inches; olive yellow (2.5Y 6/6) and dark yellowish brown (10YR 4/4) channery fine sandy loam; massive; friable; common fine and coarse pores; 30 percent rock fragments; neutral; abrupt wavy boundary.

2Cd—74 to 88 inches; olive (5Y 5/3) channery fine sandy loam; common medium distinct very dark grayish brown (10YR 3/2) mottles; weak thin and medium platy structure; firm; 20 percent rock fragments; slightly alkaline, slightly effervescent.

The thickness of the solum ranges from 34 to 60 inches. Depth to the fragipan ranges from 18 to 36 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 3 to 15 percent by volume in the surface layer, 3 to 35 percent in the subsoil and 10 to 50 percent in the substratum. Reaction, unless limed, ranges from strongly acid to slightly acid in the solum, and from moderately acid to slightly alkaline in the substratum.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. Texture ranges from fine sandy loam to silt loam in the fine earth fraction.

The Bw horizon has hue of 7.5YR through 2.5Y, value of 4 through 6, and chroma of 3 through 6. Texture is fine sandy loam through silt loam in the fine earth fraction. Structure is fine granular or subangular blocky, and the horizon is friable.

The 2E horizon has hue of 10YR or 2.5Y, value of 4 through 6 and, chroma of 2 or 3. Texture is fine sandy loam through silt loam in the fine earth fraction. It is massive or has weak platy structure, and is friable or firm.

The 2Bx horizon has hue of 10YR or 2.5Y, value of 3 through 5, and chroma of 2 through 4. Texture is fine sandy loam through loam in the fine earth fraction. It has platy or prismatic structure and is firm or very firm.

The 2C horizon has hue of 10YR through 5Y, value of 3 through 6, and chroma of 2 through 6. Texture is fine sandy loam or loam in the fine earth fraction. The 2Cd horizon has hue of 10YR through 5Y, value of 3 through 5, and chroma of 2 through 3. Texture is fine sandy loam or loam in the fine earth fraction. In some pedons, the material is calcareous.

Burdett Series

Soils of the Burdett series are very deep and somewhat poorly drained. They formed in a silty mantle and the underlying clayey glacial till. They are on the lower slopes of hills on the till plains. Slopes range from 3 to 8 percent.

Burdett soils are in a drainage sequence with moderately well drained Nunda soils and poorly drained Ilion soils. Burdett soils are near Broadalbin and Mosherville soils, which have firm, compact substrata. They are also near moderately deep Manlius soils and shallow Nassau soils.

Typical pedon of Burdett silt loam, 3 to 8 percent slopes, in the Town of Charlton, in a corn field, 75 feet south of a hedgerow, 275 feet east of the intersection of Crane Street and Dawson Road; USGS Burnt Hills topographic quadrangle; (42 degrees, 55 minutes, 39 seconds north latitude, 73 degrees, 58 minutes, 57 seconds west longitude) NAD 1927:

Ap—0 to 7 inches; dark grayish brown (2.5Y 4/2) silt loam; few fine distinct yellowish brown (10YR 5/6) mottles; moderate medium subangular blocky structure; friable; many fine and medium roots; 5

percent rock fragments; slightly acid; abrupt smooth boundary.

BE—7 to 11 inches; light yellowish brown (2.5Y 6/4) very fine sandy loam; common fine distinct dark yellowish brown (10YR 4/6) and yellowish brown (10YR 5/8) mottles; weak medium platy structure parting to moderate medium subangular blocky; firm; many fine and common medium roots; 5 percent rock fragments; neutral; clear irregular boundary.

2Bt1—11 to 18 inches; dark grayish brown (10YR 4/2) silty clay loam; common fine distinct dark yellowish brown (10YR 4/6) and yellowish brown (10YR 5/8) mottles; moderate fine and medium subangular blocky structure; firm; thin continuous clay films; few fine roots; 10 percent rock fragments; neutral; clear wavy boundary.

2Bt2—18 to 33 inches; olive brown (2.5Y 4/4) channery clay loam; common fine distinct light olive brown (2.5Y 5/6) mottles; weak medium platy structure parting to weak fine subangular blocky; firm; ped exteriors are dark grayish brown (2.5Y4/2); thin patchy clay films on faces of peds and in some pores; few 1/2 inch to 1 inch patches coated with films; few fine roots; 30 percent rock fragments; neutral; clear smooth boundary.

2C—33 to 72 inches; dark grayish brown (2.5Y 4/2) channery silt loam; many medium distinct light olive brown (2.5Y 5/4) and 5/6) and gray (10YR 5/1) mottles; massive; firm; 1/8 to 1/4 inch thick horizontal bands of silty clay loam; 30 percent rock fragments; slightly alkaline, strongly effervescent.

The thickness of the solum ranges from 30 to 50 inches. Depth to the lithologic discontinuity ranges from 13 to 25 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 20 percent by volume in the silty upper layers, and from 10 to 35 percent in the underlying till. Reaction ranges from strongly acid to neutral in the solum and slightly acid to moderately alkaline in the substratum. Depth to carbonates ranges from 30 to 72 inches.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 through 4, and chroma of 2. Texture ranges from silt loam to very fine sandy loam in the fine earth fraction. There is an E horizon in some pedons.

The BE horizon has hue of 2.5Y, value of 4 through 6, and chroma of 2 through 4, and is mottled. Texture ranges from silt loam to very fine sandy loam in the fine earth fraction. It has fine or medium subangular blocky structure.

The 2Bt horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 through 4. Texture is silty clay loam or clay loam in the fine earth fraction. Structure is weak platy or weak to moderate angular or subangular blocky. The horizon is firm or very firm.

The 2C horizon has hue of 7.5YR to 2.5Y, value of 4 or 5, and chroma of 2 through 4. Texture is silt loam, silty clay loam, loam, clay loam or sandy clay loam in the fine earth fraction. The horizon is massive or has platy structure, and is firm or very firm.

Charlton Series

Soils of the Charlton series are very deep and well drained. They formed in glacial till on the tops and sides of hills and ridges in the uplands. Slopes range from 3 to 25 percent.

Charlton soils are in a drainage sequence with moderately well drained Sutton soils, somewhat poorly drained Massena soils, and very poorly drained Sun soils. They are near Paxton, Woodbridge and Mosherville soils, which formed in compact glacial till and have a very firm substratum. They are also near shallow Hollis and Farmington soils and the Chatfield, Galway, and Newstead soils which are 20 to 40 inches deep to bedrock.

Typical pedon of Charlton loam, 8 to 15 percent slopes, in the Town of Moreau, 10 feet east of Selfridge Road, 1600 feet south of Hatchery Road; USGS Gansevoort topographic quadrangle; (43 degrees, 13 minutes, 41 seconds north latitude, 73 degrees, 39 minutes, 25 seconds west longitude) NAD 1927:

Ap—0 to 14 inches; dark brown (10YR 3/3) loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many fine and medium roots; 10 percent rock fragments; strongly acid; clear smooth boundary.

Bw1—14 to 27 inches; dark brown (7.5YR 4/4) gravelly fine sandy loam; weak medium subangular blocky structure; friable; many fine and common medium roots; 20 percent rock fragments; moderately acid; clear smooth boundary.

Bw2—27 to 36 inches; dark yellowish brown (10YR 4/4) sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; 10 percent rock fragments; moderately acid; clear wavy boundary.

C—36 to 72 inches; brown (10YR 4/3) gravelly sandy loam; weak medium platy structure; friable; few thin lenses of loamy sand; 20 percent rock fragments; moderately acid.

The thickness of the solum ranges from 20 to 38 inches. Depth to bedrock is greater than 60 inches.

The content of rock fragments ranges from 5 to 35 percent by volume to a depth of 40 inches and from 5 to 50 percent below. Reaction throughout the soil is very strongly acid to moderately acid.

The A horizon has value and chroma of 2 or 3. The Ap horizon has hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 through 4. It is commonly sandy loam or loam in the fine earth fraction.

The upper part of the B horizon has hue of 7.5YR or 10YR, with value and chroma of 4 through 6. The lower part of the B horizon has hue of 10YR or 2.5Y, with value and chroma of 4 through 6. Texture of the B horizon is sandy loam to loam in the fine earth fraction. The horizon is massive or has weak subangular blocky or granular structure, and is friable or very friable.

The C horizon has hue of 10YR through 5Y, value of 4 through 6, and chroma of 2 through 4. Texture is fine sandy loam, sandy loam, or loam in the fine earth fraction. Pockets or thin lenses of loamy sand or sand are present in the C horizon of some pedons. The horizon is massive or has platy structure, and is friable through firm.

Chatfield Series

Chatfield series are moderately deep, well to somewhat excessively drained soils that formed in glacial till derived mainly from granite, gneiss, and schist. They are on bedrock-controlled hills and ridges in the uplands. Slope ranges from 3 to 25 percent. Chatfield soils are near Charlton, Sutton, Paxton, Woodbridge, and Massena soils which are all very deep to bedrock, and Hollis soils which are less than 20 inches deep to bedrock.

Typical pedon of Chatfield sandy loam, in an area of Chatfield-Hollis Complex, undulating, rocky, 600 feet east of Braim Road, 3800 feet south of intersection with County Route 36, in the Town of Greenfield; USGS Saratoga Springs topographic quadrangle; (43 degrees, 07 minutes, 28 seconds north latitude, 73 degrees, 48 minutes, 32 seconds west longitude) NAD 1927:

Oi—0 to 1 inch; slightly decomposed layer of pine needles and oak and maple leaves.

Oe—1 to 2 inch; very dark brown (10YR 2/2) moderately decomposed organic material (leaf litter).

A—2 to 8 inches; dark yellowish brown (10YR 4/4) sandy loam, light yellowish brown (10YR 6/4) dry; moderate medium granular structure; friable; many fine and few medium roots; 10 percent gravel; strongly acid; abrupt smooth boundary.

Bw1—8 to 16 inches; strong brown (7.5YR 4/6) silt loam; weak fine subangular blocky structure; friable; common fine and few medium roots; 10 percent gravel; strongly acid; clear smooth boundary.

Bw2—16 to 24 inches; brown (7.5YR 4/4) loam; weak fine subangular blocky structure; friable; few fine roots; 10 percent gravel; strongly acid; abrupt wavy boundary.

R—24 inches; unweathered granite bedrock.

The thickness of the solum ranges from 16 to 36 inches. Depth to bedrock ranges from 20 to 40 inches. The content of rock fragments ranges from 5 to 15 percent by volume in the surface and 5 to 35 percent in the subsoil and substratum. Reaction ranges from very strongly acid to moderately acid throughout.

The A horizon has hue of 7.5YR through 2.5Y, value of 2 through 4, and chroma of 1 through 4. Dry value is 6 or higher. Texture ranges from loam to sandy loam in the fine earth fraction. Structure is weak or moderate, fine or medium granular. Consistence is friable or very friable.

The B horizon has hue of 7.5YR through 2.5Y, value and chroma of 4 through 6. Texture ranges from silt loam to sandy loam in the fine earth fraction. Structure is fine to coarse, subangular blocky or granular. Consistence is friable or very friable.

Some pedons have a C horizon. It has hue of 7.5YR through 5Y, value of 4 or 5 and chroma of 2 through 4. Textures ranges from silt loam to fine sandy loam in the fine earth fraction. The horizon has weak, medium or thick platy rock structure, or is massive.

Cheektowaga Series

Soils of the Cheektowaga series are very deep and poorly drained or very poorly drained. They formed in sandy deposits over clayey lacustrine sediments on lake plains and terraces. Slopes range from 0 to 3 percent.

Cheektowaga soils are in a drainage sequence with moderately well drained Claverack and somewhat poorly drained Cosad soils. They are near silty Scio and Raynham soils, clayey Rhinebeck and Madalin soils, loamy over clayey Elmridge and Shaker soils, and sandy Wareham and Scarboro soils. Also nearby are areas of Fluvaquents, which are subject to frequent flooding.

Typical pedon of Cheektowaga mucky very fine sandy loam, in the Town of Ballston, 660 feet south-east of Round Lake Road (County Route 80), 1700 feet south-west of the intersection with Lake Shore Road, in a permanent pasture; USGS Round Lake topographic quadrangle; (42 degrees, 55 minutes, 15 seconds north latitude, 73 degrees, 51 minutes, 24 seconds west longitude) NAD 1927:

Ap—0 to 12 inches; very dark grayish brown (10YR 3/2) mucky very fine sandy loam; brown (10YR 5/3) dry; moderate fine granular structure; friable; many fine roots; neutral; clear smooth boundary.

Eg—12 to 15 inches; light brownish gray (2.5Y 6/2) loamy sand; common fine prominent yellowish brown (10YR 5/8) mottles; very weak fine granular structure; very friable; few fine roots; neutral; abrupt smooth boundary.

Bg—15 to 21 inches; grayish brown (10YR 5/2) loamy fine sand; common fine prominent yellowish brown (10YR 5/6) mottles; weak fine subangular blocky structure; very friable; few fine roots; neutral; abrupt smooth boundary.

2C—21 to 38 inches; gray (10YR 5/1) clay; common fine distinct yellowish brown (10YR 5/8) mottles; massive; firm; 5 percent rock fragments (less than 3 inches in size along a 1 inch varve at 38 inches); neutral; abrupt smooth boundary.

3C—38 to 72 inches; yellowish brown (10YR 5/4) silty clay; many fine prominent olive gray (5Y 5/2) mottles; massive; firm; neutral.

The thickness of the solum and depth to the underlying fine textured material ranges from 20 to 40 inches. Depth to bedrock is greater than 60 inches. The soil contains few or no rock fragments. Reaction ranges from moderately acid to neutral in the upper part of the solum, but ranges to moderately alkaline just above the clayey material. Reaction of the substratum is neutral to moderately alkaline.

The A horizon has hue of 10YR or 2.5Y, value of 2 or 3, and chroma of 1 or 2. The texture is loamy sand through very fine sandy loam, commonly with mucky analogs. Structure is weak or moderate, very fine or fine granular.

The Eg horizon is neutral or has hue of 10YR or 2.5Y, value of 4 through 6, and chroma of 1 or 2, and is mottled. The texture is loamy fine sand through sand.

The B horizon has hue of 7.5YR through 2.5Y, value of 4 through 6, and chroma of 1 through 3. Texture is loamy fine sand through sand. The horizon has very weak or weak, fine or medium subangular blocky or very weak or weak, medium through thick platy structure. It is friable or very friable.

The 2C or 3C horizon has hue of 5YR through 2.5Y, value of 4 or 5, and chroma of 1 through 4, and has high and low chroma mottles. Texture is silty clay loam through clay. The horizon is massive or has weak medium to thick platy structure in depositional varves.

Chenango Series

Soils of the Chenango series are very deep and well drained to somewhat excessively drained. They formed in water-sorted sand and gravel on outwash plains, kames, eskers and alluvial fans. Slopes range from 3 to 15 percent.

Chenango soils are near sandy and gravelly, somewhat excessively drained Hoosic soils on the landscape. They are also near sandy Deerfield and Wareham soils and various glacial till soils in different parts of the county.

Typical pedon of Chenango silt loam, loamy substratum, undulating, in the Town of Charlton, 1000 feet south of a water tank, 50 feet east of Crawford Road (in development southeast of the village of Charlton); USGS Burnt Hills topographic quadrangle; (42 degrees, 55 minutes, 40 seconds north latitude, 73 degrees, 58 minutes, 04 seconds west longitude) NAD 1927:

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

Bw1—6 to 14 inches; dark yellowish brown (10YR 4/4) and brown (7.5YR 4/4) gravelly loam; strong fine granular structure; friable; many fine and few medium roots; 15 percent rock fragments; few vertical streaks about 1.5 inches wide, of brown (10YR 4/3) loam; strongly acid; clear smooth boundary.

Bw2—14 to 20 inches; dark yellowish brown (10YR 4/4) very gravelly fine sandy loam; moderate medium granular structure; friable; many fine roots; 35 percent rock fragments; moderately acid; clear wavy boundary.

Bw3—20 to 30 inches; dark yellowish brown (10YR 4/4) very gravelly silt loam; moderate fine subangular blocky structure; firm; common fine roots; 55 percent rock fragments; moderately acid; clear wavy boundary.

2C—30 to 72 inches; dark brown (10YR 3/3) very channery fine sandy loam; massive; loose; 50 percent rock fragments; slightly acid.

The thickness of the solum ranges from 24 to 50 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 10 to 15 percent by volume in the A horizon, 15 to 60 percent in the B horizon and 30 to 70 percent in the C horizon. The reaction is very strongly acid to moderately acid in the A and B horizons, and strongly acid to neutral in the C horizon.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. Texture is silt loam to sandy loam in the fine earth fraction. It has moderate fine or medium granular structure and is friable or very friable.

The B horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 through 6. Texture is fine sandy loam to silt loam in the fine earth fraction. Structure is granular or subangular blocky and the horizon is very friable to firm.

The 2C horizon has hue of 10YR, value of 3 or 4, and chroma of 2 to 4. It is silt loam or fine sandy loam, ranging to sand in some pedons, in the fine earth fraction.

Claverack Series

Soils of the Claverack series are very deep and moderately well drained. They formed in sandy deposits over clayey lacustrine sediments on lake plains. Slopes range from 0 to 8 percent.

Claverack soils are in a drainage sequence with somewhat poorly drained Cosad soils and the poorly drained or very poorly drained Cheektowaga soils. They are near sandy Windsor, Oakville and Deerfield soils; and clayey Hudson, Rhinebeck, and Madalin soils.

Typical pedon of Claverack loamy fine sand, 0 to 3 percent slopes, in the Town of Moreau, southeast corner of the junction of Clark Road and D & H Railroad, 1.25 miles east of N.Y. Route 32. (S66NY-46-16); USGS Fort Miller topographic quadrangle; (43 degrees, 13 minutes, 24 seconds north latitude, 73 degrees, 36 minutes, 58 seconds west longitude) NAD 1927:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) loamy fine sand, light brownish gray (10YR 6/2) dry; weak fine and medium granular structure; very friable; many fine roots; strongly acid; abrupt smooth boundary.

Bw1—8 to 13 inches; light olive brown (2.5Y 5/4) fine sand; common medium distinct yellowish brown (10YR 5/6) and common medium prominent strong brown (7.5YR 5/6,5/8) mottles; single grain; very friable; few .1 to .3 inch dark reddish brown (5YR 3/2) iron concretions; few fine roots; moderately acid; clear wavy boundary.

Bw2—13 to 21 inches; brown (10YR 4/3) fine sand; many fine to coarse prominent strong brown (7.5YR 5/8) and yellowish red (5YR 4/6) mottles; single grain; very friable; common weakly to strongly cemented dark reddish brown (5YR 3/4) iron concretions; few fine roots; slightly acid; abrupt smooth boundary.

BC—21 to 27 inches; dark grayish brown (10YR 4/2) sand; single grain; very friable; few fine roots; neutral; abrupt smooth boundary.

2C1—27 to 31 inches; grayish brown (2.5Y 5/2) silt loam; many medium prominent yellowish brown (10YR 5/6), strong brown (7.5YR 5/8) and dark yellowish brown (10YR 4/4) mottles; moderate medium platy structure; firm, slightly sticky; few fine roots; neutral; abrupt smooth boundary.

3C2—31 to 72 inches; brown (7.5YR 5/2) silty clay; grayish brown (10YR 5/2) ped faces; many medium prominent yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/4) mottles; moderate distinct coarse prismatic structure; very firm, sticky; few roots between prisms; neutral.

The thickness of the solum and depth to the underlying fine textured material range from 20 to 40 inches. Reaction ranges from strongly acid to neutral in the solum and neutral to moderately alkaline in the C horizon

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. The texture is fine sandy loam to sand. Structure is weak fine to medium granular.

The B horizon has hue of 7.5YR through 2.5Y, value of 4 or 5, and chroma of 3 through 6, and has high chroma mottles. Texture is loamy fine sand through sand. The horizon is structureless or has weak fine subangular blocky structure.

The 2C horizon is up to 5 inches thick. It has hue of 7.5YR through 2.5Y, value of 3 through 5 and chroma of 2 through 6. Texture is silt loam or very fine sandy loam.

The 3C horizon has hue of 7.5YR through 2.5Y, value of 3 through 5 and chroma of 2 through 6. Texture is silty clay loam through clay. The horizon is massive or has platy or prismatic structure.

Colton Series

Soils of the Colton series are very deep and excessively drained. They formed in water-sorted sand and gravel on terraces, kames, eskers and outwash plains in the Adirondack foothills. Slopes range from 3 to 35 percent.

Colton soils are near sandy Allagash soils and loamy Berkshire, Becket, or Bice soils. Also nearby are areas of Fluvaquents, which are subject to frequent flooding.

Typical pedon of Colton gravelly sandy loam, strongly sloping, in the Town of Day, 1200 feet west of Hadley Hunting Club Road, .5 mile north of Hadley Hill Road; USGS Harrisburg (15 minute) topographic quadrangle; (43 degrees, 19 minutes, 13 seconds north latitude, 74 degrees, 01 minutes, 13 seconds west longitude) NAD 1927:

Oe—0 to 1 inch; mat of moderately decomposed organic material (leaf litter).

A—1 to 3 inches; dark brown (7.5YR 3/2) gravelly sandy loam; weak fine granular structure; very friable; few fine roots; 15 percent rock fragments; extremely acid; abrupt smooth boundary.

E—3 to 4 inches; pinkish gray (7.5YR 7/2) gravelly loamy sand; weak fine granular structure; very friable; few fine roots; 15 percent rock fragments; extremely acid; abrupt smooth boundary.

Bh—4 to 7 inches; very dark brown (10YR 2/2) gravelly loamy sand; weak fine granular structure; very friable; few fine roots; 20 percent rock fragments; very strongly acid; clear wavy boundary.

Bs—7 to 13 inches; dark brown (7.5YR 3/4) gravelly loamy sand; very dark gray (N3/0) and strong brown (7.5YR 5/6) sand grains visible; single grain; loose; few medium roots; 25 percent rock fragments; very strongly acid; gradual wavy boundary.

BC—13 to 41 inches; brown (7.5YR 4/4), strong brown (7.5YR 5/6) and dark yellowish brown (10YR 4/6) very gravelly sand; single grain; loose; 45 percent rock fragments; few coarse roots; very strongly acid; gradual wavy boundary.

C—41 to 72 inches; brown (7.5YR 4/2, 5/4) stratified sand and gravel; single grain; loose; 60 percent rock fragments; very strongly acid.

The thickness of the solum ranges from 18 to 45 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments, mainly gravel and cobbles, ranges from 15 to 35 percent by volume in the surface layer, from 15 to 55 percent in the subsoil, and from 35 to 70 percent in the substratum.

The A horizon has hue of 5YR through 10YR, value of 3 through 5, and chroma of 2 through 4. Texture is sand or loamy coarse sand to fine sandy loam in the fine earth fraction. It is single grain, massive, or has granular structure. Reaction ranges from extremely acid to moderately acid.

The E horizon has hue of 5YR through 10YR, value of 4 through 7, and chroma of 1 or 2. Texture is loamy fine sand through coarse sand in the fine earth fraction. Reaction ranges from extremely acid to moderately acid.

The Bh horizon has hue of 2.5YR through 10YR, value of 2 or 3, and chroma of 1 or 2. Texture is loamy fine sandy loam to coarse sand in the fine earth fraction. The soil is massive, or has granular structure; and is friable or very friable, with or without cemented masses. Reaction ranges from extremely acid to moderately acid.

The Bs horizon has hue of 2.5YR through 10YR, value of 3 through 6, and chroma of 3 through 8. Texture is loamy fine sand to coarse sand in the fine earth fraction. The soil is massive or single grain, or has granular structure. Reaction ranges from extremely acid to moderately acid.

The BC horizon has hue of 5YR through 2.5Y, value of 3 through 6, and chroma of 2 through 6. Texture is loamy fine sand to coarse sand in the fine earth fraction. Reaction ranges from extremely acid to moderately acid.

The C horizon has hue of 7.5YR through 5Y, value of 3 through 7, and chroma of 2 through 6. It is composed of gravel, cobbles, or stones with loamy sand, sand, or coarse sand in the interstices, with varying degrees of stratification. Reaction ranges from very strongly acid to slightly acid.

Cosad Series

Soils of the Cosad series are very deep and somewhat poorly drained. They formed in sandy deposits over clayey lacustrine sediments in slight depressional areas on lake plains. Slopes range from 0 to 3 percent.

Cosad soils are in a drainage sequence with moderately well drained Claverack soils and the poorly drained or very poorly drained Cheektowaga soils. They are near sandy Windsor, Oakville, Deerfield, Wareham, and Scarboro soils; and clayey Hudson, Rhinebeck and Madalin soils.

Typical pedon of Cosad fine sandy loam, in the Town of Stillwater, 500 feet southeast of the Konopka house, 650 feet south of County Route 76; USGS Mechanicville topographic quadrangle; (42 degrees, 58 minutes, 14 seconds north latitude, 73 degrees, 42 minutes, 37 seconds west longitude) NAD 1927:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) fine sandy loam; few fine distinct brownish yellow (10YR 6/8) mottles; moderate medium and coarse granular structure; very friable; many fine medium and coarse roots; moderately acid; clear smooth boundary.

Bw1—8 to 20 inches; yellowish brown (10YR 5/4) loamy fine sand; few fine faint grayish brown (10YR 5/2) and few fine distinct strong brown (7.5YR 5/8) mottles; weak fine and medium subangular blocky structure; friable; common fine and medium roots; slightly acid; clear smooth boundary.

Bw2—20 to 27 inches; dark yellowish brown (10YR 4/4) loamy fine sand; few fine distinct brownish yellow (10YR 6/8) and strong brown (7.5YR 5/8) mottles; weak medium subangular blocky structure; friable; few medium roots; neutral; abrupt smooth boundary.

2C—27 to 72 inches; dark yellowish brown (10YR 4/4) clay; few fine manganese stains; thin discontinuous silt coats on plate surfaces in the upper part; moderate thick platy structure; firm, sticky and plastic; few medium roots; neutral.

The thickness of the solum and depth to the underlying fine textured material range from 18 to 40 inches. Reaction ranges from strongly acid through slightly acid in the surface and upper subsoil horizons, from moderately acid through neutral in the lower subsoil, and from neutral through moderately alkaline in the substratum.

The Ap horizon has hue of 7.5YR through 2.5Y, value of 2 or 3, and chroma of 1 or 2 or it is neutral. The texture is fine sandy loam to sand. Structure is weak or moderate granular, and consistence is friable or very friable.

The B horizon has hue of 10YR through 2.5Y, value of 4 through 6, and chroma of 2 through 4. It has few to common mottles of both high and low chroma, with chroma of 2 or less above a depth of 18 inches. Texture is loamy fine sand through sand. The horizon is structureless or has weak subangular blocky or platy structure.

The C horizon has hue of 2.5YR through 5GY, value of 3 through 6, and chroma 1 through 4. Texture is heavy silty clay loam through clay. The horizon is massive or has moderate medium or thick platy structure. Below depths of 40 inches, thin layers of silt and very fine sand can be present.

Deerfield Series

Soils of the Deerfield series are very deep and moderately well drained. They formed in water sorted sand on glacial outwash plains, deltas, and terraces. Slopes range from 0 to 8 percent.

Deerfield soils are in a drainage sequence with excessively drained Windsor soils, well drained Oakville soils, poorly drained Wareham soils, and very poorly drained Scarboro soils. They are near gravelly Hoosic, Chenango, or Hinckley soils; the silty Scio soils, and the sandy over clayey Claverack and Cosad soils.

Typical pedon of Deerfield loamy fine sand, undulating, in the Town of Saratoga Springs, 1400 feet north of the intersection of Ruggles Road and N.Y. 29, 1600 feet west of Ruggles Road, in Knoll Springs subdivision; USGS Quaker Springs topographic quadrangle; (43 degrees, 05 minutes, 33 seconds north latitude, 73 degrees, 43 minutes, 25 seconds west longitude) NAD 1927:

Ap—0 to 10 inches; very dark grayish brown (10YR 3/2) loamy fine sand, light brownish gray (10YR 6/2) dry; weak fine granular structure; friable; common fine roots; strongly acid; abrupt smooth boundary.

Bw1—10 to 14 inches; dark yellowish brown (10YR 4/4) loamy fine sand; many (40 percent) coarse prominent yellowish red (5YR 5/8) mottles; weak fine granular structure; friable; few fine and medium roots; strongly acid; abrupt irregular boundary.

Bw2—14 to 26 inches; dark yellowish brown (10YR 4/4) loamy fine sand; common fine distinct strong brown (7.5YR 5/6,5/8) mottles; single grain; friable; few fine and medium roots; strongly acid; gradual smooth boundary.

C1—26 to 44 inches; yellowish brown (10YR 5/4) fine sand; few fine, faint brownish yellow (10YR 6/8) and grayish brown (10YR 5/2) mottles; single grain; friable; few fine and medium roots; strongly acid; gradual wavy boundary.

C2—44 to 72 inches; brown (10YR 5/3) fine sand; single grain; friable; strongly acid.

The thickness of the solum ranges from 15 to 35 inches. Depth to bedrock is greater than 60 inches. The reaction is very strongly acid to slightly acid throughout the soil.

The Ap horizon has hue of 10YR, value of 2 through 4, and chroma of 1 through 3. Texture is fine sandy loam through sand.

The B horizon has hue of 7.5YR through 2.5Y, value of 3 through 6, and chroma of 2 through 6. Texture is fine sandy loam through sand to a depth of 10 inches, and loamy fine sand through coarse sand below. Structure is very fine to medium granular, or the horizon is single grain. The soil has mottles with chroma of 2 or less between depths of 15 and 40 inches from the surface.

The C horizon has hue of 7.5YR to 5Y, value of 4 through 6, and chroma of 1 through 4. It is coarse sand to fine sand.

Elmridge Series

Soils of the Elmridge series are very deep and moderately well drained. They formed in a loamy mantle over clayey lacustrine sediments on lake plains and terraces. Slopes range from 0 to 8 percent.

Elmridge soils are in a drainage sequence with poorly drained Shaker soils. They are near silty Unadilla and Scio soils, the clayey Hudson, Rhinebeck and Madalin soils, and the sandy over clayey Cheektowaga soils.

Typical pedon of Elmridge very fine sandy loam, 3 to 8 percent slopes, in the Town of Ballston, 300 feet east of NY-50, 0.4 mile south of County Route 339 in an idle hay field, behind a supermarket; (S64-NY46-9) USGS Burnt Hills topographic quadrangle; (42 degrees, 54 minutes, 19 seconds north latitude, 73 degrees, 54 minutes, 5 seconds west longitude) NAD 1927:

Ap—0 to 8 inches; brown (10YR 4/3) very fine sandy loam, pale brown (10YR 6/3) dry; strong fine granular structure; friable; many fine roots; common fine pores; slightly acid; abrupt smooth boundary.

Bw1—8 to 16 inches; yellowish brown (10YR 5/6) very fine sandy loam; weak fine and medium subangular blocky structure; friable; common medium roots; common fine pores; neutral; abrupt irregular boundary.

Bw2—16 to 18 inches; light olive brown (2.5Y 5/4) very fine sandy loam; moderate fine subangular blocky structure; friable; common medium roots; many medium pores; neutral; abrupt smooth boundary.

2Bw3—18 to 39 inches; dark yellowish brown (10YR 4/4) and light yellowish brown (2.5Y 6/4), varved silty clay; many medium distinct yellowish brown (10YR 5/8) and light gray (5Y 7/2) mottles; weak medium and coarse prismatic structure parting to moderate thin platy; very firm; few medium roots; many fine and medium pores; neutral; abrupt smooth boundary.

2C1—39 to 47 inches; pale olive (5Y 6/3) clay; few thin (1-4 mm.) lenses of very fine sand; many medium distinct yellowish brown (10YR 5/8) and light gray (N 7/) mottles; strong very thin and thin platy structure; firm; neutral; abrupt smooth boundary.

2C2—47 to 72 inches; brown (10YR 4/3) clay; few thin to medium (1-5 mm.) lenses of very fine sand; strong, very thin to thin platy structure; firm; slightly alkaline.

The thickness of the solum and depth to the underlying fine textured material range from 18 to 40 inches. The content of rock fragments ranges from 0 to 5 percent in the solum, and from 0 to 2 percent in the 2C horizon. Reaction ranges from very strongly acid to neutral in the surface, strongly acid to neutral in the subsoil, and moderately acid to slightly alkaline in the 2C.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. Dry value is 6 or more. The texture is sandy loam through loam, but very fine sandy loam is dominant. Structure is moderate fine or very fine granular.

The upper part of the B horizon has hue of 10YR, value of 4 or 5, and chroma of 4 through 6. Texture is very fine sandy loam. The lower part of the B horizon has hue of 10YR to 2.5Y, value of 4 or 5 and chroma of 4 through 6. Texture is fine sandy loam through loam. Structure is moderate fine or medium subangular blocky. Some pedons have thin sandy layers.

Some pedons have a silty clay loam or silty clay 2Bw or 2BC horizon just above the 2C. Structure is weak or moderate blocky, platy, or prismatic. Consistence is friable or firm.

The 2C horizon has hue of 7.5YR through 5Y, value of 4 through 6, and chroma of 2 through 4. Texture is silty clay or clay. The horizon has thin to thick platy structure and is firm.

Farmington Series

Soils of the Farmington series are shallow and somewhat excessively drained to well drained. They formed in glacial till that is 10 to 20 inches thick over limestone on the tops and sides of bedrock controlled ridges. Slopes range from 3 to 15 percent.

Farmington soils are near areas of rock outcrop, moderately deep Galway soils, and very deep Charlton, Mosherville and Sun soils.

Typical pedon of Farmington silt loam, rocky, in the Town of Charlton, 80 feet south of NY-67, 50 yards east of the intersection with West Line Road, in a hay field; USGS Pattersonville topographic quadrangle; (42 degrees, 58 minutes, 10 seconds north latitude, 74 degrees, 05 minutes, 00 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; weak fine granular structure; very friable; many fine roots; 5 percent rock fragments; neutral(limed); abrupt smooth boundary.

Bw—9 to 15 inches; dark yellowish brown (10YR 4/4) silt loam; weak fine and medium subangular blocky structure; very friable; common fine roots; few fine pores; 5 percent rock fragments; neutral; abrupt smooth boundary.

2R—15 inches; gray (10YR 5/1) limestone bedrock; fractured and creviced.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. The content of rock fragments make up 5 to 35 percent by volume of the soil. Reaction is strongly acid to neutral in the A horizon, and moderately acid to slightly alkaline in the B horizon, unless the soil is limed.

The A horizon has hue of 10YR, value of 3 through

5, and chroma of 1 through 3. Dry color value is 6 or more. Texture is fine sandy loam, loam or silt loam in the fine earth fraction.

The B horizon has hue of 10YR, value of 4 or 5, and chroma of 4 through 6. Texture is fine sandy loam, loam or silt loam in the fine earth fraction.

The 2R horizon is limestone or calcareous sandstone.

Fluvaquents

Fluvaquents consist of very deep, somewhat poorly drained to very poorly drained soils formed in material recently deposited by streams and rivers. Fluvaquents are on the most actively flooded areas of floodplains along major and secondary streams in the county. Slopes range from 0 to 3 percent.

Fluvaquents are commonly near Tioga, Teel, and Limerick soils on floodplains; Udipsamments along the Erie and Champlain Canals; and Madalin, Scarboro or Cheektowaga soils on old lake plains. They are also near Sun and Ilion soils on upland till plains. Fluvaquents occur in a complex with better-drained Udifluvents in the Adirondack foothills and are near Skerry, Lyme, and Colton soils.

Fluvaquents have little or no soil profile development. Fluvaquents are in that part of the floodplain where intermittent scourings and redeposition of sediments causes the composition and properties to differ from place to place. Because of the wide range of texture and other variables a typical pedon of Fluvaquents is not provided.

Generally the surface layer of these soils is approximately 10 inches thick. The depth to bedrock is more than 60 inches. Rock fragments including gravel, channers, and cobblestone range from 0 to 50 percent. Fluvaquents are strongly acid to slightly alkaline. Organic carbon content is irregular throughout the profile.

The surface layer has hue of 10YR through 5Y, value of 1 or 2, and chroma of 0 or 1. Textures are loamy sand to silt loam and their gravelly or very gravelly analogs.

The substratum has hue of 10YR to 5Y, value of 3 through 6, and chroma of less than 2. Mottles are commonly present. Texture is sandy loam to silty clay loam and the gravelly or very gravelly analogs of those textures. Some pedons have thin strata of sand or loamy sand.

Galway Series

Soils of the Galway series are moderately deep and well drained to moderately well drained soils that formed in glacial till over limestone, dolomitic limestone or calcareous sandstone. Slope ranges from 3 to 15 percent.

Galway soils are near Charlton, Sutton, Mosherville, Massena and Sun soils, which are all very deep to bedrock; Newstead soils which are somewhat poorly drained to poorly drained and moderately deep to bedrock; and Farmington soils which are less than 20 inches deep to bedrock.

Typical pedon of Galway loam, 3 to 8 percent slopes, in the Town of Galway, 1,200 feet north of Kania Road, 0.4 mile west of Consaul Road, (Bob's Tree Farm); USGS Galway topographic quadrangle; (43 degrees, 00 minutes, 02 seconds north latitude, 74 degrees, 03 minutes, 56 seconds west longitude) NAD 1927:

A—0 to 6 inches; dark grayish brown (10YR 4/2) loam; moderate fine granular structure; very friable; many fine and medium roots; 5 percent rock fragments; moderately acid; abrupt smooth boundary.

Bw1—6 to 10 inches; dark yellowish brown (10YR 4/4) loam; weak fine and medium subangular blocky structure; very friable; common fine and medium roots; 5 percent rock fragments; moderately acid; clear wavy boundary.

Bw2—10 to 28 inches; dark yellowish brown (10YR 3/4) loam; weak medium subangular blocky structure; very friable; common fine and medium roots; few medium pores; 10 percent rock fragments; slightly acid; clear wavy boundary.

BC—28 to 30 inches; dark brown (10YR 3/3) fine sandy loam; grayish brown (10YR 5/2) ped exteriors; few fine distinct dark yellowish brown (10YR 4/4) mottles; weak fine and medium subangular blocky structure; friable; few fine roots; 10 percent rock fragments; slightly effervescent, slightly alkaline; abrupt wavy boundary.

2R—30 inches; creviced gray calcareous sandstone bedrock.

The thickness of the solum ranges from 18 to 30 inches. Depth to bedrock ranges from 20 to 40 inches. Depth to carbonates ranges from 14 to 40 inches. The content of rock fragments ranges from 0 to 15 percent by volume in the A horizon, 3 to 35 percent in the B horizon, and from 10 to 70 percent in the C horizon, where present.

Some pedons have thin O horizons that are 1 to 3 inches thick, composed of moss and slightly decomposed plant remnants.

The A horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. The texture is silt loam or loam in the fine earth fraction. Structure is moderate fine to coarse granular or moderate fine or medium subangular blocky. Consistence is friable or very friable. Reaction ranges from moderately acid to neutral.

The B horizon has hue of 5YR through 2.5Y, value of 3 through 6, and chroma of 3 through 6. Texture is silt loam through fine sandy loam in the fine earth fraction. Structure is weak or moderate subangular blocky. Consistence is friable or firm. Reaction ranges from moderately acid to slightly alkaline.

Some pedons have a C horizon. It has hue of 5YR through 2.5Y, value of 3 through 6, and chroma of 2 through 4. Texture is silt loam through sandy loam in the fine earth fraction. The horizon is calcareous in some part.

The R horizon is limestone or calcareous sandstone.

Hinckley Series

Soils of the Hinckley series are very deep and excessively drained. They formed in water-sorted sand and gravel on outwash plains, kames, eskers and deltas. Slopes range from 0 to 25 percent.

Hinckley soils are in a drainage sequence with somewhat excessively drained Hoosic soils. They are near sandy Windsor soils, and the gravelly, loamy Chenango soils.

Typical pedon of Hinckley gravelly loamy sand, undulating, in the Town of Moreau, 500 feet north of the intersection of Redmond Road and Buttler Road, in a gravel pit; USGS Glens Falls topographic quadrangle; (43 degrees, 15 minutes, 54 seconds north latitude, 73 degrees, 41 minutes, 49 seconds west longitude) NAD 1927:

Ap—0 to 6 inches; very dark grayish brown (10YR 3/2), light brownish gray (10YR 6/2) dry, gravelly loamy sand; weak medium granular structure; very friable; 15 percent rock fragments; many fine roots; strongly acid; abrupt smooth boundary.

Bw1—6 to 16 inches; yellowish brown (10YR 5/4) gravelly loamy sand; weak medium granular structure; very friable; 25 percent rock fragments; common fine roots; strongly acid; clear smooth boundary.

Bw2—16 to 20 inches; yellowish brown (10YR 5/4) very gravelly sand; single grain; loose; 45 percent rock fragments; strongly acid; clear smooth boundary.

2C—20 to 72 inches; light brownish gray (2.5Y 6/2) stratified sand and gravel, with cobbles; single grain; loose; 50 percent rock fragments; strongly acid.

The thickness of the solum ranges from 12 to 30 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 50 percent by volume in the solum and from 15 to 50 percent in the substratum. The reaction is extremely acid to moderately acid throughout the soil.

The A or Ap horizon has hue of 10YR, value of 2 through 4, and chroma of 1 through 3, with value of 2 limited to A horizons. Texture is loamy coarse sand through very fine sandy loam in the fine earth fraction. Structure is weak or moderate very fine to coarse granular, and consistence is friable or very friable.

The upper part of the B horizon has hue of 7.5YR or 10YR, value of 3 through 5, and chroma of 4 through 8. The lower part has hue of 7.5YR through 2.5Y, value of 3 through 6, and chroma of 4 through 8. Texture, to a depth of 10 inches, ranges from fine sandy loam to loamy coarse sand in the fine earth fraction. Below a depth of 10 inches, it ranges from loamy fine sand to coarse sand in the fine earth fraction. The horizon is structureless or has weak granular structure, and is very friable or loose.

The C horizon has hue of 7.5YR through 5Y, value of 4 through 7, and chroma of 2 through 8. It is loamy fine sand through coarse sand in the fine earth fraction and is stratified.

Hollis Series

Soils of the Hollis series are shallow, somewhat excessively drained to well drained. They formed in glacial till derived from gneiss, schist, and granite. They are on the tops and sides of bedrock controlled ridges. Slopes range from 3 to 25 percent.

Hollis soils are near areas of rock outcrop, moderately deep Chatfield soils, and the very deep Charlton, Paxton, Sutton and Woodbridge soils.

Typical pedon of Hollis fine sandy loam, in an area of Chatfield-Hollis complex, hilly, very rocky, in the Town of Moreau, 60 feet north of Spier Falls Road, 5,700 feet west of Potter Road; USGS Glens Falls topographic quadrangle; (43 degrees, 14 minutes, 48 seconds north latitude, 73 degrees, 43 minutes, 24 seconds west longitude) NAD 1927:

Oe—0 to 1 inch; moderately decomposed organic material (leaf litter)

A—1 to 3 inches; very dark brown (10YR 2/2) fine sandy loam, weak fine granular structure; very friable; many fine and medium roots; 5 percent rock fragments; strongly acid; abrupt smooth boundary.

Bw1—3 to 15 inches; strong brown (7.5YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 10 percent rock fragments; strongly acid; clear wavy boundary.

Bw2—15 to 19 inches; strong brown (7.5YR 5/8) gravelly fine sandy loam; weak medium subangular blocky structure; very friable; few medium and coarse roots; 20 percent rock fragments; strongly acid; abrupt wavy boundary.

R—19 inches, unweathered gneiss bedrock.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. The content of rock fragments ranges from 5 to 15 percent by volume in the A horizon and from 5 to 35 percent in the B and C. The bedrock is granite, gneiss, or schist. Reaction is very strongly acid to moderately acid throughout.

The A horizon has hue of 7.5YR or 10YR, value of 2 through 4, and chroma of 2 or 3. Texture is loam, sandy loam, or fine sandy loam in the fine earth fraction.

The B horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 through 8. Texture is loam, sandy loam or fine sandy loam in the fine earth fraction.

Some pedons have a C horizon. It has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 5 or 6. Texture is loam, sandy loam or fine sandy loam in the fine earth fraction.

Hoosic Series

Soils of the Hoosic series are very deep and somewhat excessively drained. They formed in water-sorted sand and gravel on outwash plains, kames, eskers, and moraines. Slopes range from 0 to 30 percent.

Hoosic soils are in a drainage sequence with excessively drained Hinckley soils. They are near sandy Windsor, Deerfield, or Oakville soils. Also nearby are loamy, gravelly Chenango soils.

Typical pedon of Hoosic gravelly sandy loam, undulating, in the Town of Halfmoon, 100 yards east of the intersection of Lower Newtown Road and Button Road, in a gravel pit; USGS Troy North topographic quadrangle; (42 degrees, 51 minutes, 08 seconds north latitude, 73 degrees, 42 minutes, 04 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) gravelly sandy loam, light brownish gray (10YR 6/2) dry; weak fine granular structure; friable, hard when dry; 25 percent rock fragments; many fine roots; neutral (limed); abrupt smooth boundary.

Bw—9 to 18 inches; yellowish brown (10YR 5/6) gravelly sandy loam; weak fine granular structure; friable, hard when dry; 30 percent rock fragments; common fine roots; strongly acid; clear wavy boundary.

2BC—18 to 24 inches; yellowish brown (10YR 5/4) very gravelly loamy sand; single grain; loose; 50 percent rock fragments; common fine roots; strongly acid; clear wavy boundary.

2C—24 to 72 inches; brown (10YR 4/3) and dark grayish brown (2.5Y 4/2) stratified sand and gravel; single grain; loose; 50 percent rock fragments; few fine roots; strongly acid; clear wavy boundary.

The thickness of the solum ranges from 14 to 36 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 15 to 35 percent by volume in the surface, 20 to 50 percent of the subsoil, and 35 to 70 percent of the substratum. The reaction is very strongly acid or strongly acid above 30 inches, and very strongly acid to moderately acid below. Some pedons are moderately alkaline below seven feet.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. Texture is sandy loam to silt loam in the fine earth fraction. It has weak or moderate granular structure and is friable or very friable.

The B horizon has hue of 10YR, value of 4 or 5, and chroma of 4 through 6. Texture is sandy loam to loam in the fine earth fraction above depths of 10 to 25 inches, and very gravelly loamy sand or gravelly sand below. Structure is granular or subangular blocky, and the horizon is friable or very friable.

The 2C horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3. It is extremely gravelly or very gravelly loamy sand, sand or coarse sand.

Hornell Series

Soils of the Hornell series are moderately deep and somewhat poorly drained. They formed in glacial till that is 20 to 40 inches thick over soft, acid shale or siltstone bedrock. Slopes range from 3 to 8 percent.

Hornell soils are in a drainage sequence with poorly drained Allis soils and well drained to excessively drained Manlius soils. They are near deep Bernardston, Pittstown, Mosherville, and Ilion soils.

Typical pedon of Hornell channery silt loam, from an area of Mosherville-Hornell complex, undulating, in the Town of Ballston, in a hay field, 1,500 feet west of the intersection of County Route 57 and Marlyn Drive along Marlyn Drive; USGS Burnt Hills topographic quadrangle; (42 degrees, 55 minutes, 36 seconds north latitude, 73 degrees, 54 minutes, 23 seconds west longitude) NAD 1927:

Ap—0 to 6 inches; dark grayish brown (2.5Y 4/2) channery silt loam; strong fine subangular blocky structure; friable; many fine roots; 20 percent rock fragments; slightly acid (limed); abrupt smooth boundary.

Bw—6 to 17 inches; strong brown (7.5YR 5/8) channery silty clay loam; many (40 percent) prominent light olive brown (2.5Y 5/4) and light gray (2.5Y 7/2) mottles; strong fine and medium angular blocky structure; surface of peds are light brownish gray (2.5Y 6/2); firm; common medium roots; 25 percent channers; moderately acid (lime influenced); abrupt wavy boundary.

C—17 to 24 inches; strong brown (7.5YR 5/8) very channery silty clay loam; common medium prominent dark grayish brown (2.5Y 4/2) mottles and some plate surfaces; weak thin and medium platy structure; firm; few medium roots; 50 percent channers; strongly acid; abrupt wavy boundary.

2R—24 inches; dark gray acid shale bedrock, easily cut with a spade in the upper few inches.

The thickness of the solum ranges from 17 to 40 inches. Depth to bedrock ranges from 20 to 40 inches. The content of rock fragments ranges from 0 to 35 percent by volume in the A horizon, 3 to 35 percent in the B horizon, and 15 to 60 percent in the C horizon. Unless the soil is limed, reaction ranges from extremely acid to strongly acid in the surface layer and is very strongly acid or strongly acid in the subsoil and substratum horizons.

The Ap horizon has hue of 7.5YR through 2.5Y, value of 2 through 4 and chroma of 1 through 4. The texture is silt loam or silty clay loam.

E horizons are present in some pedons.

The Bw horizons have hue of 7.5YR through 5Y, value of 3 through 6, and chroma of 2 through 8, and have distinct or prominent mottles. Texture is silty clay loam, silty clay or clay in the fine earth fraction. Structure is angular blocky or subangular blocky, often within prisms.

The C horizon has color and texture similar to the B horizon, but the material is massive, or has platy structure inherited from the rock structure.

The R horizon is soft shale or siltstone bedrock.

Hudson Series

Soils of the Hudson series are very deep and moderately well drained. They formed in water deposited material, high in clay, on glacial lake plains. Slopes range from 3 to 35 percent.

Hudson soils are in a drainage sequence with somewhat poorly drained Rhinebeck soils and poorly drained to very poorly drained Madalin soils. They are near coarse silty Unadilla, Scio, and Raynham soils; the Elmridge, Shaker, Claverack, and Cosad soils, which have coarser material overlying the clay deposits; and the loamy Bernardston and Pittstown soils which formed in glacial till material.

Typical pedon of Hudson silt loam, 3 to 8 percent slopes, in the Town of Northumberland, in a corn field, 30 feet east of County Route 29, (West River Road) 1.25 miles north of intersection with N.Y. Route 32; USGS Fort Miller topographic quadrangle; (43 degrees, 08 minutes, 59 seconds north latitude, 73 degrees, 35 minutes, 51 seconds west longitude) NAD 1927:

Ap—0 to 8 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine subangular blocky structure; friable; many fine roots; slightly acid; abrupt smooth boundary.

B/E—8 to 13 inches; yellowish brown (10YR 5/4) silty clay loam; thin brown (10YR 5/3), light brownish gray (10YR 6/2) dry, silt coats greater than 1 millimeter thick on faces of peds; moderate medium subangular blocky structure; firm; thin clay linings in common fine pores; common fine roots; neutral; clear smooth boundary.

Bt—13 to 32 inches; light olive brown (2.5Y 5/4) silty clay; many medium distinct grayish brown (10YR 5/2) and yellowish brown (10YR 5/6) mottles; strong coarse angular blocky structure; thick distinct continuous dark brown (10YR 4/3) clay films on most ped surfaces and in pores; few manganese stains; firm; few medium roots; neutral; clear smooth boundary.

C—32 to 72 inches; brown (10YR 5/3) and olive brown (2.5Y 4/3) clay; strong medium platy structure; thin faint discontinuous gray (5Y 6/1) clay films on some plate surfaces; firm; slightly alkaline, slightly effervescent.

The thickness of the solum ranges from 20 to 60 inches. Depth to free carbonates ranges from 20 to 70 inches. The content of rock fragments ranges from 0 to 10 percent by volume throughout the soil. Reaction ranges from strongly acid to neutral in the surface and upper subsoil, moderately acid to slightly alkaline in the Bt horizon, and neutral to moderately alkaline in the C horizon.

The Ap horizon has hue of 7.5YR through 2.5Y, value of 2 through 4, and chroma of 2 or 3. The texture is loam to silty clay loam, with silt loam dominant. Structure is granular or subangular blocky, and consistence is friable or very friable.

The E horizon, when present, has hue of 7.5YR through 5Y, value of 5 or 6, and chroma of 2 or 3, and is faintly mottled in some pedons. It is very fine sandy loam, loam, silt loam, or silty clay loam. The E horizon has weak or moderate subangular blocky or platy structure, and very friable to firm consistence.

The B/E horizon has ranges in characteristics like that of the Bt in the B part, and like that of the E in the E part. The albic material constitutes less than 15 percent by volume of the horizon. Redoximorphic features are few through many and faint, or they are absent.

The Bt horizon has hue of 7.5YR through 5Y, value of 3 through 6, and chroma of 2 through 4. Texture is silty clay loam or silty clay. Structure is angular or subangular blocky, and consistence is firm or very firm.

The C horizon has hue of 5YR through 5Y, value of 3 through 5, and chroma of 1 through 3. Texture is silt loam through clay. The horizon is massive or has platy structure.

Ilion Series

Soils of the Ilion series are very deep and poorly drained. They formed in clayey glacial till at the base of slopes and in depressions on till plains. Slopes range from 0 to 3 percent.

Ilion soils are in a drainage sequence with moderately well drained Nunda soils and somewhat poorly drained Burdett soils. They are near moderately deep Hornell and Allis soils. Also nearby are areas of Fluvaquents, which are subject to frequent flooding.

Typical pedon of Ilion silt loam, in the Town of Milton, 300 feet south of County Route 45, 350 feet west of County Route 59; USGS Middle Grove topographic quadrangle; (43 degrees, 01 minute, 35 seconds north latitude, 73 degrees, 53 minutes, 17 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; very dark gray (5Y 3/1) silt loam, dark grayish brown (2.5Y 4/2) dry; weak and moderate medium granular structure; very friable, slightly sticky; many fine and few medium and coarse roots; 2 percent rock fragments; neutral; clear smooth boundary.

Eg1—9 to 14 inches; dark grayish brown (2.5Y 4/2) silt loam; common fine distinct dark yellowish brown (10YR 4/4) and yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure; friable; many fine and few medium roots; 2 percent rock fragments; neutral; clear wavy boundary.

Eg2—14 to 18 inches; grayish brown (2.5Y 5/2) silt loam; many (35 percent) medium and coarse distinct dark yellowish brown (10YR 4/6) and yellowish brown (10YR 5/6) mottles; weak medium and coarse subangular blocky structure; friable; few fine roots; 3 percent rock fragments; neutral; clear wavy boundary.

Btg—18 to 32 inches; grayish brown (2.5Y 5/2) silty clay loam; common medium and coarse distinct yellowish brown (10YR 5/6) mottles; weak medium and coarse subangular blocky structure; firm; few fine roots; thin continuous gray (10YR 5/1) clay films in pores and on faces of peds; 5 percent rock fragments; common very dark gray (10YR 3/1) bodies of decomposed shale; slightly alkaline; clear smooth boundary.

BCg—32 to 40 inches; dark grayish brown (2.5 4/2) silty clay loam; common medium and coarse distinct yellowish brown (10YR 5/6) mottles; weak medium and coarse subangular blocky structure; firm; 10 percent rock fragments; many very dark gray (10YR 3/1) bodies of decomposed shale; slightly effervescent, slightly alkaline; gradual smooth boundary.

Cdg1—40 to 50 inches; dark grayish brown (2.5Y 4/2) channery silty clay loam; common medium distinct yellowish brown (10YR 5/4) mottles; massive; firm; 20 percent rock fragments; strongly effervescent, moderately alkaline.

Cdg2—50 to 72 inches; grayish brown (2.5Y 5/2) channery silt loam; few medium distinct yellowish brown (10YR 5/4) mottles; massive; firm; 30 percent rock fragments; strongly effervescent, slightly alkaline.

The thickness of the solum ranges from 24 to 40 inches. Depth to carbonates ranges from 20 to 60 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments range from 0 to 20 percent by volume in the surface and upper subsoil and from 10 to 35 percent in the lower subsoil and substratum. Reaction ranges from moderately acid to neutral in the surface and upper subsoil, moderately acid through slightly alkaline in the Bt horizon and slightly or moderately alkaline in the lower subsoil and substratum.

The Ap horizon has hue of 10YR or 2.5Y, value of 2 or 3, and chroma of 1 or 2. Texture is loam, silt loam or silty clay loam in the fine earth fraction. It has weak or moderate, fine or medium granular structure, and is friable to firm.

The E horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2. Texture is loam, silt loam or silty clay loam in the fine earth fraction. The horizon has weak platy or angular blocky structure, and it is friable or firm.

The B horizon has hue of 10YR to 5Y, value of 3 through 6, and chroma of 1 or 2, and is mottled. Texture is clay loam or silty clay loam in the fine earth fraction. Structure is weak or moderate subangular blocky, or prismatic parting to angular blocky.

The C horizon has hue of 10YR to 5Y, value of 3 through 5, and chroma of 1 through 3. Texture is loam, silt loam or silty clay loam in the fine earth fraction. The horizon is massive or has platy structure.

Limerick Series

Soils of the Limerick series are very deep and poorly drained. They formed in recent alluvium on floodplains. Slope ranges from 0 to 3 percent.

Limerick soils are in a drainage sequence with well drained Tioga soils, moderately well drained Teel soils and very poorly drained Saco soils. They are near coarse-silty Unadilla, Scio, and Raynham soils, which are on terraces. Also nearby are areas of Fluvaquents, which are subject to frequent flooding and have variable soil properties. Udipsamments are associated with Limerick soils along the Erie and Champlain Canals.

Typical pedon of Limerick silt loam, from an area of Limerick-Saco complex, in the Town of Saratoga, 65 feet west of south access road, 0.7 mile east of US-4, 2.5 miles south of Schuylerville (Saratoga Sod Farm); USGS Schuylerville topographic quadrangle; (43 degrees, 03 minutes, 18 seconds north latitude, 73 degrees, 35 minutes, 15 seconds west longitude) NAD 1927:

Ap—0 to 5 inches; dark olive gray (5Y 3/2) silt loam, light brownish gray (2.5Y 6/2) dry; common fine and medium distinct olive brown (2.5Y 4/4) mottles in the lower part; weak medium granular structure; very friable; many fine and few medium and coarse roots; neutral; clear wavy boundary.

Cg1—5 to 16 inches; dark gray (5Y 4/1) silt loam; common medium and coarse prominent dark yellowish brown (10YR 3/4, 4/4) mottles; very weak coarse subangular blocky structure; friable; few fine roots; slightly acid; clear wavy boundary.

Cg2—16 to 23 inches; dark gray (5Y 4/1) silt loam; few fine and medium distinct light olive brown (2.5Y 5/4) and few fine and medium faint olive (5Y 4/3) mottles (along root channels); massive; very friable; slightly acid; gradual wavy boundary.

Cg3—23 to 44 inches; gray (5Y 5/1) very fine sandy loam; few fine faint olive (5Y 5/3) mottles in the upper part; massive; very friable; few thin lenses of loamy fine sand; neutral; clear wavy boundary.

2Cg4—44 to 72 inches; very dark gray (5Y 3/1) loamy fine sand; massive; very friable; common lenses and bodies of very dark brown (10YR 2/2) mucky loamy fine sand; neutral.

Depth to bedrock is greater than 60 inches. Reaction is strongly acid to neutral in the A horizon and moderately acid to neutral in the C horizon.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. The texture is silt loam or very fine sandy loam.

The C horizon has hue of 2.5Y or 5Y, value of 4 or 5 and chroma of 2 or 3, above 30 inches, and 1 through 4 below, and is mottled. Texture is silt loam or very fine sandy loam.

The 2C horizon has hue of 10YR to 5Y, value of 3 through 5, and chroma of 1 through 4. Texture is loamy fine sand or loamy sand.

Lyman Series

Soils of the Lyman series are shallow and somewhat excessively drained. They formed in glacial till that is 10 to 20 inches thick over mica schist or gneiss bedrock, in the Adirondack foothills. Slopes range from 3 to 45 percent.

Lyman soils are near areas of rock outcrop, very deep Berkshire, Becket, Skerry, and Lyme soils, and moderately deep Tunbridge soils.

Typical pedon of Lyman loam, in an area of Tunbridge-Lyman complex, strongly sloping, very rocky, which has a very bouldery surface, in the Town of Corinth, along a logging road, 1,000 feet north-northeast of the Spruce Mountain fire tower; USGS Porter Corners topographic quadrangle; (43 degrees, 13 minutes, 07 seconds north latitude, 73 degrees, 54 minutes, 17 seconds west longitude) NAD 1927:

Oi—0 to 1 inch; slightly decomposed sphagnum moss and beech leaves.

A—1 to 5 inches; black (5YR 2.5/1) loam; weak very fine granular structure; friable, slightly smeary; many fine roots; 5 percent rock fragments; very strongly acid; clear wavy boundary.

E—5 to 6 inches; dark reddish gray (5YR 4/2) sandy loam; weak fine subangular blocky structure; friable; common fine roots; 5 percent rock fragments; very strongly acid; abrupt broken boundary.

Bs—6 to 13 inches; yellowish red (5YR 4/6) and brown (7.5YR 4/4) loam; moderate medium subangular blocky structure; firm, moderately smeary; common fine and few medium roots; 5 percent rock fragments; very strongly acid; abrupt wavy boundary.

R—13 inches, hard, gneiss bedrock.

The thickness of the solum ranges from 10 to 20 inches and corresponds to depth to bedrock. The content of rock fragments ranges from 5 to 25 percent by volume throughout the soil. Reaction ranges from extremely acid to moderately acid throughout the soil.

The A horizon is neutral or has hue of 5YR through 10YR, value of 2 or 3, and chroma of 0 through 2.

The E horizon has hue of 5YR through 10YR, value of 4 through 6, and chroma of 1 or 2. The A and E horizons are sandy loam to silt loam in the fine earth fraction.

The Bh horizon, where present, has hue of 2.5YR through 10YR, value of 2 through 4, and chroma of 2 through 6. The Bs horizon has hue of 5YR through 10YR, value of 3 through 5, and chroma of 3 through 8. Texture is sandy loam to silt loam in the fine earth fraction.

The R horizon is gneiss or schist.

Lyme Series

Soils of the Lyme series are very deep and poorly drained. They formed in loamy glacial till in the Adirondack foothills. Slopes range from 0 to 3 percent.

Lyme soils are in a drainage sequence with well drained Berkshire, Becket, and Bice soils; and moderately well drained Skerry and Schroon soils. They are near moderately deep Tunbridge soils, shallow Lyman soils, and very poorly drained Wonsqueak soils which have organic surface layers thicker than 16 inches. Also nearby are areas of Fluvaquents, which are subject to frequent flooding.

Typical pedon of Lyme fine sandy loam, very stony, in the Town of Hadley, 100 feet east of Tower Road, 0.4 mile north of Hadley Hill Road; USGS Conklingville topographic quadrangle; (43 degrees, 21 minutes, 31 seconds north latitude, 73 degrees, 57 minutes, 03 seconds west longitude) NAD 1927:

A—0 to 8 inches; black (5YR 2.5/1) fine sandy loam; gray (5YR 5/1) dry; strong fine granular structure; very friable; many fine roots; 10 percent rock fragments; very strongly acid; clear smooth boundary.

Bg1—8 to 14 inches; dark grayish brown (10YR 4/2) sandy loam; weak fine subangular blocky structure; friable; many fine roots; 10 percent rock fragments; strongly acid; clear smooth boundary.

Bg2—14 to 23 inches; dark grayish brown (10YR 4/2) sandy loam; few fine distinct light olive brown (2.5Y 5/4) and common medium distinct yellowish brown (10YR 5/4,5/6) mottles; weak fine subangular blocky structure; friable; common medium and few coarse roots; 10 percent rock fragments; strongly acid; clear smooth boundary.

C1—23 to 35 inches; brown (10YR 5/3) sandy loam; many (30 percent) medium distinct light olive brown (2.5Y 5/4) and few fine distinct strong brown (7.5YR 5/8) and dark yellowish brown (10YR 4/6) mottles; massive; friable; 10 percent rock fragments; strongly acid; gradual smooth boundary.

C2—35 to 72 inches; dark brown (10YR 4/3) loamy sand; few fine faint olive brown (2.5Y 4/4) mottles; massive; friable; 10 percent rock fragments; strongly acid.

The thickness of the solum ranges from 15 to 36 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 30 percent by volume in the solum and from 10 to 35 percent in the substratum. Reaction throughout the soil is very strongly acid or strongly acid. Consistence is very friable or friable.

The A horizon has hue of 5YR through 2.5Y, value of 2 or 3, and chroma of 1 or 2. Dry value is 5 or 6. Texture is loam through sandy loam in the fine earth fraction.

The Bg horizon is neutral or has hue of 10YR through 5Y, value of 4 through 6 and chroma of 0 through 2. Texture is loam through sandy loam in the fine earth fraction.

The BC or Bw horizon, if present, is neutral or has hue of 10YR through 5Y, value of 4 through 6, and chroma of 2 through 4. Texture is loam through sandy loam in the fine earth fraction.

The C horizon has hue of 10YR through 5Y, value of 4 through 6, and chroma of 1 through 4. Texture is fine sandy loam or sandy loam in the fine earth fraction. Below a depth of 30 inches, some pedons have loamy sand or loamy coarse sand textures.

Madalin Series

Soils of the Madalin series are very deep and poorly drained to very poorly drained. They formed in water deposited material high in clay, on glacial lake plains. Slopes range from 0 to 3 percent.

Madalin soils are in a drainage sequence with moderately well drained Hudson soils and somewhat poorly drained Rhinebeck soils. They are near coarse, silty Unadilla, Scio, and Raynham soils; and the Elmridge, Shaker, Claverack, Cosad and Cheektowaga soils that have coarser material overlying the clay deposits. Also nearby are areas of Fluvaquents, which are subject to frequent flooding, and Palms soils in areas that are typically ponded.

Typical pedon of Madalin mucky silty clay loam, in the Town of Waterford, in idle pasture, 1/4 mile west of Routes U.S. 4 and NY 32, 1/4 mile north of the Village of Waterford line (200 feet south of power line); USGS Troy North topographic quadrangle; (42 degrees, 48 minutes, 40 seconds north latitude, 73 degrees, 40 minutes, 27 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; black (10YR 2/1) mucky silty clay loam; very dark gray (10YR 3/1) dry; strong fine and medium granular structure; friable; common fine roots; neutral; clear smooth boundary.

Btg1—9 to 13 inches; gray (5Y 6/1) silty clay; many coarse prominent yellowish brown (10YR 5/6) mottles; moderate medium subangular blocky structure; firm, sticky and plastic; common thin continuous clay films on ped faces and in worm channels; neutral; clear smooth boundary.

Btg2—13 to 22 inches; (70 percent) gray (5Y 6/1), (30 percent) yellowish brown (10YR 5/6) silty clay; many thick continuous gray (10YR 5/1) clay films; moderate coarse prismatic structure parting to weak medium angular blocky; firm, very sticky, very plastic; neutral; clear smooth boundary.

BCg—22 to 36 inches; gray (10YR 5/1) clay; common fine distinct yellowish brown (10YR 5/6) and few fine distinct dark grayish brown (10YR 4/2) mottles; massive, weakly varved; firm, very sticky and very plastic; neutral; clear smooth boundary.

Cg—36 to 72 inches; dark gray (N 4/) clay; common fine distinct yellowish brown (10YR 5/6) and few fine distinct dark grayish brown (10YR 4/2) mottles; massive, strongly varved; firm, very sticky and very plastic; neutral, slightly effervescent at 55 inches.

The thickness of the solum ranges from 24 to 48 inches. Depth to free carbonates ranges from 24 to 60 inches. The content of rock fragments ranges from 0 to 2 percent by volume in the A and B horizons, and from 0 to 20 percent in the C horizon. Reaction ranges from strongly acid to slightly alkaline in the A horizon and moderately acid to slightly alkaline in the B horizon, and neutral to moderately alkaline in the C horizon.

The Ap horizon has hue of 7.5YR through 2.5Y, value of 2 or 3, and chroma of 0 through 2. The texture is silt loam, silty clay loam or loam in the fine earth fraction commonly with mucky analogs. Structure is granular or subangular blocky, and consistence is friable or very friable.

The B horizon has hue of 7.5YR through 5Y and includes 5G and 5GY in some pedons, value of 4 through 6 and chroma of 1 or 2, and is mottled. Texture is silty loam through clay. Structure is angular blocky or subangular blocky within prisms. Consistence is firm or very firm.

The C horizon has hue of 5YR through 5Y, and includes 5G and 5GY in some pedons, value of 4 or 5 and chroma of 0 through 3. The horizon is massive within varves.

Manlius Series

Soils of the Manlius series are moderately deep and well drained to excessively drained. They formed in glacial till that is 20 to 40 inches thick over shale bedrock. Slopes range from 3 to 25 percent.

Manlius soils are in a drainage sequence with somewhat poorly drained Hornell soils and poorly drained Allis soils. Manlius soils are near shallow Nassau soils, and deep Broadalbin, Nunda, Mosherville, Burdett, Bernardston, Pittstown, and Sun soils. Manlius soils are also associated with Udipsamments along the Erie and Champlain Canals

Typical pedon of Manlius channery silt loam, in an area of Bernardston-Manlius-Nassau complex, undulating, in the Town of Stillwater, 1,300 feet west of NY-32, 1.9 miles north of the intersection with NY 423 (in a hayfield); USGS Quaker Springs topographic quadrangle; (43 degrees, 00 minutes, 39 seconds north latitude, 73 degrees, 39 minutes, 30 seconds west longitude) NAD 1927:

Ap—0 to 5 inches; dark brown (10YR 3/3) channery silt loam; moderate medium granular structure; friable; many fine and medium roots; 15 percent rock fragments; strongly acid; abrupt wavy boundary.

Bw1—5 to 18 inches; brown (10YR 4/3) channery silt loam; weak medium subangular blocky structure; firm; many medium roots; 30 percent rock fragments; strongly acid; gradual smooth boundary.

Bw2—18 to 21 inches; brown (10YR 4/3) very channery silt loam; moderate medium subangular blocky structure; firm; few medium roots; 40 percent rock fragments; strongly acid; gradual wavy boundary.

C—21 to 24 inches; yellowish brown (10YR 5/4) extremely channery silt loam; 60 percent (fractured shale) rock fragments; very strongly acid; abrupt wavy boundary.

2R—24 inches; shale bedrock, soft and fractured in the upper 3 inches.

The thickness of the solum ranges from 15 to 30 inches. Depth to bedrock ranges from 20 to 40 inches. The content of rock fragments range from 15 to 35 percent in the surface layer, from 25 to 60 percent in the subsoil, and 30 to 70 percent in the substratum. Reaction ranges from extremely acid to strongly acid in the solum, and from very strongly acid to slightly acid in the substratum.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. Texture is loam or silt loam in the fine earth fraction.

The B horizon has hue of 10YR, value of 4 to 6, and chroma of 3 to 6. Texture is loam or silt loam in the fine earth fraction.

The C horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 to 4. Texture is loam or silt loam in the fine earth fraction.

Massena Series

Soils of the Massena series are very deep and somewhat poorly drained. They formed in glacial till at the base of slopes and on nearly level areas of till plains in the uplands. Slopes range from 0 to 3 percent.

Massena soils are in a drainage sequence with well drained Charlton soils, moderately well drained Sutton soils, and very poorly drained Sun soils. They are near Paxton and Woodbridge soils, which formed in compact glacial till and have a very firm substratum. They are also near Chatfield, Galway, and Newstead soils, which are 20 to 40 inches deep to bedrock.

Typical pedon of Massena silt loam, 0 to 3 percent slopes, in the Town of Charlton, 125 feet south of Eastern Avenue, 2310 feet west of Division Street, in an orchard; USGS Pattersonville topographic quadrangle; (42 degrees, 57 minutes, 01 second north latitude, 74 degrees, 00 minutes, 13 seconds west longitude) NAD 1927:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam; light brownish gray (10YR 6/2) dry; moderate fine granular structure; friable; many fine roots; few fine pores; 5 percent rock fragments; slightly acid; clear smooth boundary.

Bw1—8 to 19 inches; olive brown (2.5Y 4/4) fine sandy loam; few fine distinct yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure; friable; few fine roots; many fine pores; 5 percent rock fragments; slightly acid; clear wavy boundary.

Bw2—19 to 26 inches; olive brown (2.5Y 4/4) fine sandy loam; common fine distinct yellowish brown (10YR 5/8) mottles; weak medium subangular blocky structure; friable; few fine roots; grayish brown (2.5Y 5/2) ped faces; 5 percent rock fragments; slightly acid; clear wavy boundary.

Cg1—26 to 30 inches; grayish brown (2.5Y 5/2) loam; many medium and coarse prominent yellowish brown (10YR 5/6) mottles; massive; firm; few fine roots; 5 percent rock fragments; neutral; abrupt smooth boundary.

2Cg2—30 to 40 inches; dark grayish brown (2.5Y 4/2) gravelly fine sandy loam; common medium distinct dark yellowish brown (10YR 4/4) mottles; weak thick platy structure; firm; few coarse and fine roots; 20 percent rock fragments; neutral; clear wavy boundary.

2Cg3—40 to 58 inches; olive brown (2.5Y 4/4) gravelly fine sandy loam; common fine and medium distinct dark yellowish brown (10YR 4/4) mottles; few medium reddish brown (5YR 4/4) concretions; weak thick platy structure; firm; few coarse roots; 20 percent rock fragments; neutral; clear wavy boundary.

3Cg4—58 to 72 inches; dark grayish brown (2.5Y 4/2) very gravelly fine sandy loam; many (25 percent) medium faint yellowish brown (10YR 5/4) mottles; massive; friable; few sand lenses; 40 percent rock fragments; neutral grading to strongly effervescent and moderately alkaline.

The thickness of the solum ranges from 18 to 36 inches. Depth to carbonates ranges from 20 to 60 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 35 percent by volume in the solum, and up to 50 percent in the C horizon. Reaction ranges from moderately acid to neutral in the solum, and from neutral to moderately alkaline in the C horizon.

The Ap horizon has hue of 7.5YR through 2.5Y, value of 3 or 4, and chroma of 1 or 2. It is sandy loam through silt loam in the fine earth fraction. It has weak to moderate, fine or very fine granular structure, and is friable or very friable.

The B horizon has hue of 5YR through 2.5Y, value of 4 through 6, and chroma of 2 through 4, and is mottled. Texture is sandy loam through loam in the fine earth fraction. The horizon is massive or has weak, fine or medium subangular blocky structure, and is friable or very friable.

The C horizon is similar to the B horizon in color and texture of the fine earth fraction. It is massive or platy and has very firm to friable consistence. Where the upper part is friable, the lower part is firm or very firm. Some pedons have a 2Cg horizon.

Mosherville Series

Soils of the Mosherville series are very deep and somewhat poorly drained, and have compact subsoil and dense substratum. They formed in a loamy eolian mantle and underlying glacial till in uplands. Slopes range from 0 to 8 percent.

Mosherville soils are in a drainage sequence with well drained or moderately well drained Broadalbin soils and poorly drained or very poorly drained Sun soils, and are associated with moderately deep Hornell soils. Mosherville soils are near Charlton, Sutton, Nunda, and Burdett soils, which do not have a dense substratum, moderately deep Galway or Manlius soils; and shallow Farmington or Nassau soils.

Typical pedon of Mosherville silt loam, 3 to 8 percent slopes, in the Town of Ballston, 200 feet south of Randall Road, 1,000 feet east of Goode Street (S66NY-46-3); USGS Burnt Hills topographic quadrangle; (42 degrees, 58 minutes, 41 seconds north latitude, 73 degrees, 53 minutes, 47 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; moderate medium and fine granular structure; very friable; many fine roots; 5 percent rock fragments; slightly acid; abrupt smooth boundary.

BE—9 to 16 inches; light olive brown (2.5Y 5/3) loam; many fine and medium distinct dark yellowish brown (10YR 4/4) mottles; weak fine and medium subangular blocky structure; very friable, slightly plastic; many fine roots; 5 percent rock fragments; slightly acid; clear wavy boundary.

2Bx—16 to 47 inches; olive (5Y 5/3) gravelly fine sandy loam; common fine distinct yellowish brown (10YR 5/6) mottles; very coarse prismatic structure; streaks with gray (5Y 6/1) centers and strong brown (7.5YR 5/8) borders along prism faces; firm and brittle, slighty plastic; few fine roots; 20 percent rock fragments, including some soft shale fragments; neutral; clear wavy boundary.

2Cd—47 to 72 inches; olive brown (2.5Y 4/4) gravelly fine sandy loam; strong medium and thick platy structure; very firm; 25 percent rock fragments, including some soft shale fragments; slightly effervescent in lower part, slightly alkaline.

The thickness of the solum ranges from 40 to 60 inches. Depth to the fragipan ranges from 14 to 30 inches. The surficial mantle ranges from 10 to 36 inches in thickness. Distinct high chroma mottles are within a depth of 12 inches. The content of rock fragments ranges from 1 to 25 percent by volume in the surface layer and upper subsoil and from 5 to 30 percent in the fragipan and substratum.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 through 3. Texture ranges from fine sandy loam to silt loam in the fine earth fraction. Reaction ranges from strongly acid to slightly acid.

The B horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 through 6. Texture is fine sandy loam through silt loam. The horizon has weak granular to weak very fine blocky structure and is friable or very friable. Reaction ranges from strongly acid to slightly acid.

The Bx horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3 with few to many high chroma mottles. Texture is fine sandy loam or loam. Structure is prismatic or the horizon is massive, and it is firm or very firm and brittle. Reaction is strongly acid through neutral.

The C horizon is predominantly 10YR 4/2 or 2.5Y 4/2, fine sandy loam or loam. It is massive or has platy structure, and is firm or very firm. Dark shale fragments are conspicuous in the fragipan and C horizon. Reaction ranges from moderately acid to slightly alkaline.

Nassau Series

Soils of the Nassau series are shallow and somewhat excessively drained. They formed in glacial till that is 10 to 20 inches thick over shale or slate bedrock. Slopes range from 3 to 25 percent.

Nassau soils are near moderately deep Manlius soils, and very deep Bernardston, Broadalbin, Burdett, Mosherville, Nunda, Pittstown, and Sun soils. Nassau soils are also associated with Udipsamments along the Erie and Champlain Canals.

Typical pedon of Nassau channery silt loam, from an area of Manlius-Nassau complex, rolling, rocky, in the Town of Waterford, west side of Peebles Island, 100 yards east of the Mohawk River; USGS Troy North topographic quadrangle; (42 degrees, 47 minutes, 00 seconds north latitude; 73 degrees, 41 minutes, 09 seconds west longitude) NAD 1927:

Ap—0 to 3 inches; very dark grayish brown (10YR 3/2) channery silt loam, light brownish gray (10YR 6/2) dry; weak fine granular structure; very friable; many fine and medium roots; 20 percent rock fragments; strongly acid; abrupt wavy boundary.

Bw—3 to 18 inches; yellowish brown (10YR 5/4) very channery silt loam; weak fine subangular blocky structure; very friable; common fine roots; 50 percent rock fragments; strongly acid; abrupt wavy boundary.

R—18 inches; shale bedrock, tilted and fractured, soft in upper few inches.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. The content of rock fragments ranges from 15 to 35 percent by volume in the surface layer, and from 35 to 70 percent in the subsoil and substratum. Reaction ranges from very strongly acid or strongly acid throughout the soil.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3. Texture is loam or silt loam in the fine earth fraction. Structure is weak fine or medium granular and consistence is friable or very friable.

The B horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 or 4. Texture is loam or silt loam in the fine earth fraction. Consistence is friable or very friable.

Some pedons have thin C horizons above the bedrock.

Newstead Series

The Newstead series consists of moderately deep and somewhat poorly drained soils that formed in glacial till over limestone, dolomitic limestone or calcareous sandstone. Slopes range from 0 to 3 percent.

Newstead soils are near Charlton, Sutton, and Massena soils which are all very deep to bedrock; Galway soils which are well drained or moderately well drained; and Farmington soils which are less than 20 inches deep to bedrock.

Typical pedon of Newstead loam, in the Town of Galway, 2,800 feet north of the intersection of County Routes 45 and 147, 400 feet west of Route 147, adjacent to a running track; USGS Galway topographic quadrangle; (43 degrees, 01 minutes, 32 seconds north latitude, 74 degrees, 02 minutes, 03 seconds west longitude) NAD 1927:

Ap—0 to 5 inches; very dark grayish brown (10YR 3/2) loam; moderate medium granular structure; very friable; many fine roots; 5 percent rock fragments; neutral; abrupt smooth boundary.

Bw1—5 to 11 inches; dark brown (10YR 4/3) sandy loam; few fine faint yellowish brown (10YR 5/6) mottles; moderate medium subangular blocky structure; friable; few fine roots; 10 percent rock fragments; neutral; abrupt smooth boundary.

Bw2—11 to 21 inches; dark brown (10YR 3/3) gravelly loam; common medium distinct dark yellowish brown (10YR 4/6) mottles; moderate coarse subangular blocky structure; dark grayish brown (2.5Y 4/2) ped faces; 15 percent rock fragments; firm; few fine roots; neutral; clear wavy boundary. (At 19 to 21 inches there is a discontinuous layer of loamy sand.)

C—21 to 23 inches; dark brown (10YR 4/3) gravelly silt loam; common medium distinct grayish brown (2.5Y 5/2) mottles; massive; firm; few fine roots; 20 percent rock fragments; neutral; thin layer of yellowish red (5YR 4/6) loamy sand at bedrock contact due to decayed limestone.

2R—23 inches; brown (10YR 4/3) limestone bedrock.

The thickness of the solum ranges from 12 to 30 inches. Depth to bedrock ranges from 20 to 40 inches. The content of rock fragments ranges from 2 to 35 percent by volume in the A and B horizons, and from 15 to 50 percent in the C horizon. Commonly up to 10 percent of rock fragments are greater than 3 inches in size.

The A horizon has hue of 10YR or 2.5Y, value 2 or 3, and chroma of 1 or 2. The texture is sandy loam to silt loam in the fine earth fraction. Structure is weak or moderate fine or medium granular. Consistence is friable or very friable. Reaction ranges from moderately acid to slightly alkaline.

The B horizon has hue of 7.5YR through 2.5Y, value 3 through 5, and chroma of 2 through 4. It has few to many faint or distinct mottles. Texture is sandy loam to silt loam in the fine earth fraction. Structure is weak or moderate, fine through coarse subangular blocky. Consistence is friable or firm. Reaction ranges from slightly acid to moderately alkaline.

The C horizon has hue of 7.5YR through 2.5Y, value of 3 through 5, and chroma of 2 through 4. Texture is sandy loam to silt loam in the fine earth fraction. Reaction ranges from neutral to moderately alkaline.

The 2R horizon is limestone or calcareous sandstone.

Nunda Series

Soils of the Nunda series are very deep and moderately well drained. They formed in a silty mantle and the underlying clayey glacial till. They are on the sides and tops of hills on the till plains. Slopes range from 3 to 15 percent.

Nunda soils are in a drainage sequence with somewhat poorly drained Burdett soils and poorly drained Ilion soils. Nunda soils are near Broadalbin and Mosherville soils, which have firm, compact substrata. They are also near moderately deep Manlius soils and shallow Nassau soils.

Typical pedon of Nunda silt loam, 3 to 8 percent slopes, in the Town of Charlton, 1,600 feet east of the intersection of Western Avenue and West Line Road, 200 feet north of Western Avenue, in a hay field; USGS Pattersonville topographic quadrangle; (42 degrees, 57 minutes, 33 seconds north latitude, 74 degrees, 04 minutes, 40 seconds west longitude) NAD 1927:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam; light brownish gray (10YR 6/2) dry; moderate fine granular structure; friable; many fine and few medium roots; 5 percent rock fragments; strongly acid; clear smooth boundary.

BA—8 to 13 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine subangular blocky structure; friable; many fine roots; 5 percent rock fragments; moderately acid; clear smooth boundary.

2B/E—13 to 17 inches; dark brown (10YR 4/3) and light olive brown (2.5Y 5/4) silty clay loam; common medium distinct dark yellowish brown (10YR 3/6) mottles; moderate fine subangular blocky structure; friable; common fine roots; 10 percent rock fragments; very pale brown (10YR 7/3) dry, ped faces greater than 1 millimeter thick; few faint clay films in pores; moderately acid; clear smooth boundary.

2Bt1—17 to 21 inches; light olive brown (2.5Y 5/4) channery silty clay loam; common medium distinct strong brown (7.5YR 5/8), reddish yellow (7.5YR 6/8) and grayish brown (2.5Y 5/2) mottles; moderate fine angular blocky structure; firm; few fine roots; faint discontinuous gray (10YR 6/1) clay films on faces of peds; 20 percent rock fragments; moderately acid; clear wavy boundary.

2Bt2—21 to 32 inches; dark grayish brown (2.5Y 4/2) and very dark grayish brown (2.5Y 3/2) channery silty clay loam; few fine distinct strong brown (7.5YR 5/8) and yellowish brown (10YR 5/8) mottles; moderate medium angular blocky structure; firm; faint discontinuous dark gray (10YR 4/1) clay films on faces of peds; 25 percent rock fragments; neutral; clear wavy boundary.

2C—32 to 72 inches; olive brown (2.5Y 4/4), dark grayish brown (2.5Y 4/2) and very dark grayish brown (2.5Y 3/2) channery silt loam; few fine distinct yellowish brown (10YR 5/8) mottles; weak thick platy structure parting to weak medium angular blocky; firm; 30 percent rock fragments; neutral; slightly effervescent at 60 inches.

The solum thickness ranges from 30 to 50 inches. Depth to bedrock is greater than 40 inches. The content of rock fragments range from 5 to 25 percent by volume in the silty upper layers, and from 5 to 30 percent in the underlying till. Reaction ranges from strongly acid to neutral in the A and E horizons, moderately acid to neutral in the Bt horizons, and slightly acid to slightly alkaline in the C horizon.

The A horizon has hue of 10YR or 2.5Y, value of 3 through 5, and chroma of 2 or 3. Texture ranges from silt loam to very fine sandy loam in the fine earth fraction.

The E horizon, where present, has hue of 2.5Y or 5Y, value of 5 or 6, and chroma of 2 or 3, and is mottled. Texture is silt loam or very fine sandy loam in the fine earth fraction.

The 2Bt horizon has hue of 10YR through 5Y, value of 4 or 5, and chroma of 2 or 3, and it is mottled. Texture is silty clay loam or clay loam in the fine earth fraction.

The C horizon has colors similar to the 2Bt. Texture is loam to silt loam in the fine earth fraction.

Oakville Series

Soils of the Oakville series are very deep and well drained or moderately well drained. They formed in water-sorted sand on glacial outwash plains, lake plains and beach ridges. Slopes range from 0 to 35 percent.

Oakville soils are in a drainage sequence with excessively drained Windsor soils, moderately well drained Deerfield soils, poorly drained Wareham soils, and very poorly drained Scarboro soils. They are near gravelly Hoosic or Hinckley soils, the sandy over clayey Claverack and Cosad soils, the loamy Bernardston and Pittstown soils, and the silty Unadilla, Scio, and Raynham soils.

Typical pedon of Oakville loamy fine sand, nearly level, in the Town of Clifton Park, in a sand pit, 640 feet east of Vischer Ferry Road; 900 feet north of Riverview Road; USGS Niskayuna topographic quadrangle; (42 degrees, 47 minutes, 54 seconds north latitude, 73 degrees, 49 minutes, 33 seconds west longitude) NAD 1927:

Ap—0 to 7 inches; dark yellowish brown (10YR 4/4) loamy fine sand, light brownish gray (10YR 6/2) dry; weak fine granular structure; friable; many fine and few medium roots; slightly acid; abrupt smooth boundary.

Bw1—7 to 13 inches; yellowish brown (10YR 5/6) loamy fine sand; common darker colored worm channels; weak medium subangular blocky structure; friable; many fine and common medium roots; slightly acid; clear wavy boundary.

Bw2—13 to 31 inches; brownish yellow (10YR 6/6) loamy fine sand; weak medium subangular blocky structure; friable; many fine and few medium roots; slightly acid; clear wavy boundary.

BC—31 to 37 inches; yellowish brown (10YR 5/6) loamy fine sand; common fine faint strong brown (7.5YR 5/8) mottles; massive; friable; common fine and medium roots; slightly acid; gradual wavy boundary.

C1—37 to 60 inches; yellowish brown (10YR 5/4) loamy fine sand; discontinuous horizontal 1/8 to 1/4 inch bands of very dark grayish brown (10YR 3/2) fine sandy loam, and vertical streaks and patches of brown (10YR 5/3) in the lower part; single grain; loose; neutral; clear smooth boundary.

C2—60 to 90 inches; dark yellowish brown (10YR 4/4) loamy fine sand; single grain; loose; neutral.

The thickness of the solum ranges from 20 to 65 inches. Depth to bedrock is greater than 60 inches. The reaction is very strongly acid to neutral in the solum, and moderately acid to neutral in the C horizon.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 1 through 4. Uncultivated areas have A horizons which have hue of 10YR, value of 2 or 3, and chroma of 1 or 2. Texture is fine sand, sand, loamy fine sand or loamy sand.

The B horizon has hue of 7.5YR or 10YR, value of 4 through 6, and chroma of 4 through 8, and may have mottles with chroma of 3 or more. It is fine sand or loamy fine sand.

The C horizon has hue of 10YR to 2.5Y, value of 4 through 6, and chroma of 1 through 6. It is sand or loamy fine sand.

Palms Series

Soils of the Palms series are very deep and very poorly drained. They formed in well-decomposed organic material overlying mineral soil. The loamy material is at a depth of 16 to 51 inches. Palms soils are in depressional areas or basins that were formerly lakes or ponds. They receive runoff water from surrounding areas. Slopes are less than 2 percent.

Palms soils are near clayey Madalin soils, sandy Scarboro soils, silty Raynham soils, and loamy Sun soils.

Typical pedon of Palms muck, in the Town of Ballston, 400 feet west of Lake Shore Road, 0.3 mile north of the intersection with Sweet Road, adjacent to Ballston Lake; USGS Round Lake topographic quadrangle; (42 degrees, 56 minutes, 32 seconds north latitude, 73 degrees, 51 minutes, 16 seconds west longitude) NAD 1927:

Oa1—0 to 3 inches; black (5YR 2.5/1) broken face sapric material (muck); strong very fine granular structure; very friable, slightly plastic; common medium roots; slightly acid; abrupt wavy boundary.

Oa2—3 to 11 inches; black (10YR 2/1) broken face sapric material (muck); moderate medium angular blocky structure; friable, slightly plastic; common medium roots; slightly acid; abrupt wavy boundary.

Oa3—11 to 28 inches; very dark gray (10YR 3/1) rubbed sapric material (muck); moderate very coarse subangular blocky structure; firm, slightly sticky and slightly plastic; neutral; abrupt wavy boundary.

2Cg1—28 to 31 inches; greenish gray (5GY 5/1) silt loam; common medium prominent olive (5Y 5/4) mottles; massive; firm, slightly sticky, plastic; neutral; abrupt wavy boundary.

2Cg2—31 to 42 inches; dark gray (5Y 4/1) fine sandy loam; common coarse prominent yellowish brown (10YR 5/6) mottles; massive; firm, slightly plastic; neutral; abrupt wavy boundary.

2Cg3—42 to 72 inches; grayish brown (2.5Y 5/2) loamy very fine sand; single grain; firm; slightly effervescent.

The depth to the contrasting loamy mineral material ranges from 16 to 51 inches. The organic layers are almost exclusively highly decomposed herbaceous material. Reaction in the organic layers is strongly acid to slightly alkaline, becoming less acid with depth. The mineral soil substratum is slightly acid to moderately alkaline.

The surface tier has hue of 5YR through 10YR, value of 2 or 3, and chroma of 1 or 2. The subsurface tier has hue of 10YR, value of 2 or 3 and chroma of 1 or 2.

The mineral C horizon has hue of 2.5Y through 5GY, value of 4 or 5, and chroma of 1 or 2. Texture is silt loam, fine sandy loam, loamy very fine sand, very fine sand or silty clay loam.

Paxton Series

Soils of the Paxton series are very deep and well drained. They formed in compact glacial till deposits derived mainly from granite, schist, and gneiss. They are on the sides and tops of hills in the uplands. Slopes range from 3 to 15 percent.

Paxton soils are in a drainage sequence with moderately well drained Woodbridge soils and poorly drained Sun soils. Paxton soils are near Charlton and Sutton soils, which do not have a restrictive layer in the substratum, and the somewhat poorly drained Massena soils, which have a less dense substratum. They are also near moderately deep Chatfield soils and shallow Hollis soils.

Typical pedon of Paxton gravelly sandy loam, 3 to 8 percent slopes, in the Town of Providence, in a hay field, 50 feet south of N.Y. Route 29, 100 feet east of the Fulton County line; USGS Galway topographic quadrangle; (43 degrees, 03 minutes, 43 seconds north latitude, 74 degrees, 06 minutes, 35 seconds west longitude) NAD 1927:

Ap—0 to 7 inches; dark brown (10YR 3/3) gravelly sandy loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many fine roots; 20 percent rock fragments; neutral (limed); abrupt smooth boundary.

Bw1—7 to 16 inches; dark yellowish brown (10YR 4/6) gravelly sandy loam; weak medium subangular blocky structure; friable; common fine roots; 20 percent rock fragments; neutral (limed); clear wavy boundary.

Bw2—16 to 31 inches; yellowish brown (10YR 5/4) gravelly sandy loam; few fine distinct strong brown (7.5YR 5/8) mottles just above the Cd horizon; weak medium subangular blocky structure; friable; few fine roots; 15 percent rock fragments; moderately acid (limed); clear smooth boundary.

Cd—31 to 72 inches; olive brown (2.5Y 4/4) gravelly fine sandy loam; massive, with a few weak thin plates present; firm (very firm below 50 inches); 20 percent rock fragments; strongly acid.

The thickness of the solum ranges from 18 to 40 inches and commonly corresponds to the depth to the dense substratum. Depth to bedrock is greater than 72 inches. The content of rock fragments ranges from 5 to 35 percent by volume throughout the soil. Reaction ranges from very strongly acid to moderately acid throughout the soil.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 through 4. Texture ranges from loam to sandy loam in the fine earth fraction. The horizon is friable or very friable.

The Bw1 horizon has hue of 7.5YR or 10YR, value of 4 through 6, and chroma of 4 through 8. The Bw2 horizon has hue of 10YR or 2.5Y, value of 4 through 6, and chroma of 3 through 6. Textures are sandy loam, fine sandy loam, and loam in the fine earth fraction. The B horizon has weak medium subangular blocky structure, and is friable or very friable.

The Cd horizon has hue of 2.5Y or 5Y, value of 4 through 6, and chroma of 2 through 4. Textures are sandy loam, fine sandy loam, and loam in the fine earth fraction. The horizon has weak or moderate, medium or thick platy structure, or is massive. Consistence is very firm and brittle. Some pedons have a friable C horizon above the Cd horizon.

Pittstown Series

Soils of the Pittstown series are very deep and moderately well drained, and have a dense substratum. They formed in compact glacial till on the sides and tops of hills in the uplands. Slopes range from 0 to 8 percent.

Pittstown soils are in a drainage sequence with well drained Bernardston soils and very poorly drained Sun soils. Pittstown soils are near moderately deep Manlius, Hornell, and Allis soils, and shallow Nassau soils. They are also near sandy Oakville or Windsor soils, and clayey Hudson and Rhinebeck soils.

Typical pedon of Pittstown silt loam, 0 to 3 percent slopes, in the Town of Stillwater, 50 feet west of Jack Halloran Road, 15 feet south of the intersection with Brickhouse Road; USGS Mechanicville topographic quadrangle; (42 degrees, 59 minutes, 29 seconds north latitude, 73 degrees, 41 minutes, 30 seconds west longitude) NAD 1927:

Ap—0 to 11 inches; very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2) dry; moderate fine granular structure; friable; common fine and medium roots; 5 percent rock fragments; moderately acid; abrupt smooth boundary.

Bw1—11 to 15 inches; brown (10YR 5/3) and yellowish brown (10YR 5/4) gravelly silt loam; few fine faint brownish yellow (10YR 6/8) mottles; weak medium subangular blocky structure; friable; few fine roots; 20 percent rock fragments; moderately acid; abrupt smooth boundary.

Bw2—15 to 23 inches; olive brown (2.5Y 4/4) gravelly loam; common fine distinct light brownish gray (10YR 6/2) mottles; weak medium angular blocky structure; friable; 25 percent rock fragments; moderately acid; abrupt smooth boundary.

Cd—23 to 72 inches; yellowish brown (10YR 5/4) and light olive brown (2.5Y 5/4) gravelly loam; common fine distinct light brownish gray (2.5Y 6/2) and yellowish brown (10YR 5/6) mottles; moderate medium angular blocky structure; firm; 20 percent rock fragments; moderately acid above 30 inches, slightly acid below.

The thickness of the solum ranges from 20 to 30 inches and commonly corresponds to the depth to the dense substratum. Depth to mottling ranges from 15 to 24 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments smaller than 3 inches range from 5 to 25 percent by volume in the surface and subsoil, and from 15 to 30 percent in the substratum. Reaction ranges from very strongly acid to moderately acid to a depth of 30 inches, and from very strongly acid to slightly acid below 30 inches.

The Ap horizon has hue of 10YR, value of 2 through 4, and chroma of 2 or 3. Texture ranges from very fine sandy loam to silt loam in the fine earth fraction.

The upper part of the Bw horizon has hue of 7.5YR through 2.5Y, value of 4 or 5, and chroma of 3 through 6. It is friable or very friable. The lower part has hue of

2.5Y or 5Y, value of 4 or 5, and chroma of 3 through 6. It is distinctly or prominently mottled. Texture of the Bw horizon ranges from very fine sandy loam to silt loam in the fine earth fraction.

The Cd horizon has hue of 2.5Y or 5Y, value of 4 or 5, and chroma of 2 through 4. Texture ranges from very fine sandy loam to silt loam in the fine earth fraction. The horizon is firm or very firm.

Raynham Series

Soils of the Raynham series are very deep and somewhat poorly drained. They formed in deposits of silt and very fine sand on glacial lake plains. Slopes range from 0 to 3 percent.

Raynham soils are in a drainage sequence with well drained Unadilla soils and moderately well drained Scio soils. They are near Hudson, Rhinebeck, and Madalin soils which formed in clayey sediments, the poorly drained or very poorly drained Cheektowaga soils which have sandy deposits overlying clayey material, and Oakville, Windsor, Wareham, and Scarboro soils which formed in sandy outwash deposits. Also on nearby floodplains are recently deposited loamy Tioga, Teel, Saco, and Limerick soils. Palms soils are in some adjacent areas where frequent ponding occurs.

Typical pedon of Raynham silt loam, in the Town of Halfmoon, 75 feet west of Pohl Drive and 500 yards north of County Route 86 (Upper Newtown Road); USGS Mechanicville topographic quadrangle; (42 degrees, 52 minutes, 31 seconds north latitude, 73 degrees, 42 minutes, 28 seconds west longitude) NAD 1927:

Ap—0 to 12 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine granular structure; very friable; many fine roots; neutral; abrupt smooth boundary.

Bw1—12 to 16 inches; yellowish brown (10YR 5/4) very fine sandy loam; many fine and medium distinct strong brown (7.5YR 5/8), many fine and medium faint yellowish brown (10YR 5/6), and common medium distinct light brownish gray (2.5Y 6/2) mottles; weak fine subangular blocky structure; friable; common fine roots; common fine pores; neutral; clear wavy boundary.

Bw2—16 to 26 inches; yellowish brown (10YR 5/4) very fine sandy loam; many coarse distinct strong brown (7.5YR 5/8) and many coarse faint light brownish gray (2.5Y 6/2) mottles; weak coarse prismatic structure parting to weak medium subangular blocky; friable; common fine roots; common fine pores; grayish brown (2.5Y 5/2) faces of peds; neutral; clear wavy boundary.

Bw3—26 to 34 inches; yellowish brown (10YR 5/4) very fine sandy loam; many (40 percent) coarse distinct light brownish gray (10YR 6/2) and strong brown (7.5YR 5/8) mottles; weak coarse prismatic structure parting to weak medium subangular blocky; friable; few fine roots; common fine pores; neutral; clear wavy boundary.

C—34 to 72 inches; light brownish gray (10YR 6/2) very fine sandy loam; many coarse distinct strong brown (7.5YR 5/8) and yellowish brown (10YR 5/4) mottles; weak thick and very thick platy structure; friable; few fine roots; common fine pores; neutral.

The thickness of the solum ranges from 16 to 37 inches. The content of rock fragments make up 0 to 2 percent by volume in the soil to a depth of 40 inches. Reaction ranges from strongly acid to neutral in the solum, and moderately acid to slightly alkaline in the substratum.

The A horizon has hue of 10YR or 2.5Y, value of 2 through 4, and chroma of 1 through 3. The texture is silt loam through very fine sandy loam.

The B horizon has hue of 10YR or 2.5Y, value of 4 through 6, and chroma of 2 through 4. One or more subhorizons have chroma of 2. Mottles are distinct or prominent. Texture is silt loam through very fine sandy loam. The horizon has weak fine or medium subangular blocky structure, and is friable or firm.

The C horizon has hue of 7.5YR or 10YR, value of 4 through 6, and chroma of 1 through 4, and is mottled. Texture is silt loam or very fine sandy loam, and may have thin strata of silt to fine sand. The horizon is massive, or has platy structure, and is friable or firm.

Rhinebeck Series

Soils of the Rhinebeck series are very deep and somewhat poorly drained. They formed in water deposited material high in clay, on glacial lake plains. Slopes range from 0 to 8 percent.

Rhinebeck soils are in a drainage sequence with moderately well drained Hudson soils and poorly drained to very poorly drained Madalin soils. They are near coarse silty Unadilla, Scio, and Raynham soils, the sandy Wareham soils; the Elmridge, Shaker, Claverack, Cosad and Cheektowaga soils which have coarser material overlying the clay deposits, and the loamy Bernardston and Pittstown soils which formed in glacial till material.

Typical pedon of Rhinebeck silt loam, 3 to 8 percent slopes, in the Town of Halfmoon, in a corn field near Brookwood Road, 0.6 mile west of N.Y. Route 32; USGS Troy North topographic quadrangle; (42 degrees, 49 minutes, 58 seconds north latitude, 73 degrees, 40 minutes, 54 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; dark grayish brown (10YR 4/2) silt loam; moderate medium granular structure; friable; common fine and medium roots; slightly acid; abrupt smooth boundary.

E—9 to 11 inches; light brownish gray (2.5Y 6/2) silt loam; common fine distinct yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/4) mottles; weak medium subangular blocky structure; friable; common fine and medium roots; few fine pores; moderately acid; clear wavy boundary.

Bt—11 to 22 inches; dark brown (10YR 3/3) silty clay loam; many medium distinct yellowish brown (10YR 5/6) and common fine distinct brown (7.5YR 4/4) mottles; moderate coarse prismatic structure parting to moderate medium subangular blocky; firm; dark grayish brown (10YR 4/2) faces on peds; few fine roots; common fine pores; moderately acid; clear wavy boundary.

Bg—22 to 37 inches; dark grayish brown (10YR 4/2) silty clay; common medium distinct strong brown (7.5YR 5/6) and brown (7.5YR 4/4) mottles; moderate coarse and very coarse prismatic structure parting to moderate medium subangular blocky; firm; few fine roots; few fine pores; moderately acid; clear wavy boundary.

C—37 to 72 inches; dark brown (10YR 4/3) silty clay loam; common medium distinct strong brown (7.5YR 5/6) and brown (7.5YR 4/4) mottles; massive, varved; firm; few pores; neutral; calcareous at 58 inches (strongly effervescent).

The thickness of the solum ranges from 20 to 40 inches. Depth to free carbonates ranges from 20 to 72 inches. The content of rock fragments ranges from 0 to 25 percent in the A horizon, and 0 to 10 percent in the B and C horizons. Reaction ranges from strongly acid to neutral in the A horizon, strongly acid to slightly alkaline in the B horizon, and slightly acid to moderately alkaline in the C horizon.

The Ap horizon has hue of 7.5YR through 2.5Y, value of 2 through 4, and chroma of 1 through 3. The texture is silt loam or silty clay loam in the fine earth fraction. Structure is granular or subangular blocky, and consistence is friable.

The E horizon has hue of 7.5YR through 5Y, value of 4 through 6, chroma of 1 through 3, and is mottled. The texture is silt loam, very fine sandy loam or silty clay loam. Structure is weak or moderate subangular blocky, and consistence is friable or firm.

The B horizon has hue of 7.5YR through 5Y, value of 3 through 5, chroma of 2 through 4, and is mottled. Texture is silty clay loam or silty clay, and there may be subhorizons of silt loam or clay. Structure is weak to strong, prismatic to subangular blocky, and either single or compound. Consistence is firm or very firm.

The C horizon has hue of 5YR through 5Y, value of 3 through 5, and chroma of 1 through 4. Texture is silty clay loam through clay, and may have discontinuous subhorizons of fine sand. The horizon is massive, with or without varving.

Saco Series

Soils of the Saco series are very deep and very poorly drained. They formed in recent alluvium on floodplains. Slopes range from 0 to 2 percent.

Saco soils are in a drainage sequence with well drained Tioga soils, moderately well drained Teel soils, and poorly drained Limerick soils. They are near coarse-silty Unadilla, Scio, and Raynham soils, which are on terraces.

Typical pedon of Saco silt loam, from an area of Limerick-Saco complex, in the Town of Stillwater, 100 feet west of a pumping station, at the end of Ferry Lane, behind Stillwater Central School; USGS Mechanicville topographic quadrangle; (42 degrees, 56 minutes, 36 seconds north latitude, 73 degrees, 38 minutes, 17 seconds west longitude) NAD 1927:

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

Ap2—10 to 13 inches; very dark grayish brown (10YR 3/2) silt loam; common fine distinct strong brown (7.5YR 4/6) and few fine faint grayish brown (10YR 5/2) mottles; moderate medium granular structure; very friable; common fine and medium roots; strongly acid; clear wavy boundary.

Cg1—13 to 23 inches; grayish brown (2.5Y 5/2) silt loam; common medium prominent strong brown (7.5YR 5/6) mottles; weak thick platy structure; friable; few fine and medium roots; strongly acid; clear smooth boundary.

Cg2—23 to 72 inches; olive gray (5Y 5/2) silt loam; common medium prominent strong brown (7.5Y 5/8) mottles; common medium prominent very dark gray (N 3/0) nodules; weak thick platy structure; friable; moderately acid.

Depth to bedrock is greater than 60 inches. Reaction is strongly acid to neutral above 30 inches, and moderately acid to neutral below.

The Ap horizon has hue of 7.5YR to 2.5Y, value of 2 or 3, and chroma of 1 through 3. The texture is silt loam or very fine sandy loam, or their mucky analogs. The horizon is massive or has weak fine granular structure and is friable or very friable.

The C horizon is neutral or has hue of 10YR to 5Y, value of 3 through 6, and chroma of 0 through 2, and may be mottled. Texture above a depth of 40 inches is silt loam or very fine sandy loam, and below 40 inches ranges from loamy fine sand to very gravelly coarse sand. The upper silty layers are massive or have weak structure, and are friable or very friable. Underlying sandy layers are single grain and loose.

Scarboro Series

Soils of the Scarboro series are very deep and very poorly drained. They formed in water-sorted sand in depressions on glacial outwash plains and lake plains. Slopes range from 0 to 3 percent.

Scarboro soils are in a drainage sequence with excessively drained Windsor soils, well drained Oakville soils, moderately well drained Deerfield soils, and poorly drained Wareham soils. They are near sandy over clayey Cosad or Cheektowaga soils, silty Raynham soils and clayey Rhinebeck and Madalin soils. Also nearby are areas of Fluvaquents, which are subject to frequent flooding and Palms soils in areas that are typically ponded.

Typical pedon of Scarboro mucky loamy sand, in the Town of Clifton Park, 700 feet west of Hatlee Road, 0.5 mile northwest of the intersection with Hubbs Road; USGS Round Lake topographic quadrangle; (42 degrees, 55 minutes, 07 seconds north latitude, 73 degrees, 50 minutes, 15 seconds west longitude) NAD 1927:

Oe—0 to 3 inches; black (5YR 2.5/1) mucky peat; moderately acid; abrupt wavy boundary.

A1—3 to 10 inches; black (10YR 2/1) mucky loamy sand; many clean quartz sand grains visible; weak fine and medium granular structure; very friable; many medium roots; moderately acid; abrupt irregular boundary.

Cg1—10 to 19 inches; light gray (5Y 7/1) sand, with 1/8 to 1/2 inch thick horizontal gray (5Y 5/1) bands; single grain; loose; few medium roots; moderately acid; abrupt wavy boundary.

Cg2—19 to 29 inches; light olive gray (5Y 6/2) sand, with few 1/2 inch thick horizontal gray (5Y 5/1) bands; few fine prominent yellowish brown (10 YR 5/4) mottles; single grain; loose; few medium roots; moderately acid; abrupt wavy boundary.

Cg3—29 to 45 inches; gray (5Y 5/1) sand; many (30 percent) coarse prominent strong brown (7.5YR 5/8) mottles; single grain; loose; slightly acid; abrupt wavy boundary.

Cg4—45 to 75 inches; dark greenish gray (5GY 4/1) loamy sand; common medium distinct light olive brown (2.5Y 5/6) mottles; single grain; loose; slightly acid.

Depth to bedrock is greater than 60 inches. Reaction is very strongly acid to moderately acid in the A horizon and upper part of the C horizon, and moderately acid through neutral in the lower part of the C. The content of rock fragments makes up 0 to 10 percent by volume in the soil.

The O horizon consists of mucky peat or muck.

The A1 horizon has hue of 5YR through 2.5Y, value of 2 or 3 and chroma of 0 through 2. Texture is loamy fine sand, loamy sand, sand, sandy loam or fine sandy loam, and commonly their mucky analogs.

The C horizon has hue of 10YR through 5Y, or 5GY, value of 4 through 7 and chroma of 0 through 4, and it is mottled. Texture is loamy fine sand, loamy sand, fine sand, sand or coarse sand. The horizon is massive or single grain, and often has fine stratifications.

Schroon Series

Soils of the Schroon series are very deep and moderately well drained. They formed in stony glacial till in the Adirondack foothills. Slopes range from 0 to 8 percent.

Schroon soils are in a drainage sequence with well drained Bice soils and poorly drained Lyme soils. They are near Berkshire soils which have red colors in the subsoil, and shallow Woodstock soils.

Typical pedon of Schroon sandy loam, gently sloping, stony, in the Town of Providence, 100 feet northeast of South Line Road, 0.8 mile east of the intersection with County Route 16; USGS Galway topographic quadrangle; (43 degrees, 05 minutes, 10 seconds north latitude, 74 degrees, 01 minute, 02 seconds west longitude) NAD 1927:

Oi—0 to 2 inches; mat of slightly decomposed leaf litter.

A—2 to 6 inches; very dark brown (10YR 2/2), light brownish gray (10YR 6/2) dry, sandy loam; moderate fine granular structure; very friable; extremely acid; many fine roots; 5 percent rock fragments; abrupt smooth boundary.

Bw1—6 to 14 inches; dark yellowish brown (10YR 4/4) sandy loam; weak fine granular structure; friable; very strongly acid; few medium, many fine roots; 5 percent rock fragments; clear smooth boundary.

Bw2—14 to 22 inches; dark brown (10YR 4/3) sandy loam; common fine distinct grayish brown (10YR 5/2) and few medium distinct yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure; friable; very strongly acid; few fine roots; 10 percent rock fragments; clear smooth boundary.

C1—22 to 32 inches; dark brown (10YR 4/3) sandy loam; many (30 percent) medium distinct strong brown (7.5YR 4/6) and many (30 percent) medium distinct dark grayish brown (2.5Y 4/2) mottles; massive; friable; strongly acid; 5 percent rock fragments; clear wavy boundary.

C2—32 to 72 inches; dark grayish brown (2.5Y 4/2) sandy loam; few fine faint yellowish brown (10YR 5/6) mottles; massive; friable; strongly acid; 5 percent rock fragments.

The thickness of the solum ranges from 20 to 36 inches. Depth to bedrock is greater than 60 inches. The content of rock fragment ranges from 5 to 35 percent by volume throughout the soil. Reaction is extremely acid through moderately acid in the surface, very strongly acid to moderately acid in the subsoil, and strongly acid to slightly acid in the C horizon.

The A horizon has hue of 7.5YR through 10YR, value of 2 or 3, and chroma of 1 or 2. Plowed areas have value and chroma of 1 or 2 units higher. Texture is sandy loam, fine sandy loam, or loam in the fine earth fraction.

The upper part of the B horizon has hue of 5YR through 10YR, and value and chroma of 3 or 4. The lower part of the B horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 through 6, and is faintly or distinctly mottled. Texture is sandy loam, fine sandy loam, or loam in the fine earth fraction. Structure is weak granular or subangular blocky.

The C horizon has hue of 10YR through 5Y, value of 4 through 6, and chroma of 2 through 4, and has high or low chroma mottles. Texture is coarse sandy loam through fine sandy loam in the fine earth fraction. Structure is weak platy or the horizon is massive.

Scio Series

Soils of the Scio series are very deep and moderately well drained. They formed in deposits of silt and very fine sand on glacial lake plains. Slopes range from 0 to 8 percent.

Scio soils are in a drainage sequence with well drained Unadilla soils and somewhat poorly drained Raynham soils. They are near Hudson, Rhinebeck, and Madalin soils which formed in clayey sediments, and Oakville or Windsor soils which formed in sandy outwash deposits. They are also near Cheektowaga soils where sandy deposits overlie a clayey substratum, and the Elmridge and Shaker soils having loamy over clayey deposits. Also on nearby floodplains are recently deposited loamy Tioga, Teel, Saco, and Limerick soils.

Typical pedon of Scio silt loam, 0 to 3 percent slopes, in the Town of Clifton Park, 100 feet south of Riverview Road, 500 feet east of Male Road; USGS Niskayuna topographic quadrangle; (42 degrees, 47 minutes, 45 seconds north latitude, 73 degrees, 46 minutes, 56 seconds west longitude) NAD 1927:

Ap—0 to 4 inches; dark grayish brown (10YR 4/2) silt loam; few fine faint dark yellowish brown (10YR 4/6) mottles; weak fine granular structure; very friable, slightly sticky; many fine and medium roots; moderately acid (limed); abrupt smooth boundary.

Bw1—4 to 14 inches; brown (10YR 5/3) silt loam; common fine distinct dark yellowish brown (10YR 4/6) mottles; moderate medium subangular blocky structure; friable slightly sticky; common fine and few medium roots; moderately acid (limed); clear smooth boundary.

Bw2—14 to 23 inches; yellowish brown (10YR 5/4 and 5/6) silt loam; many (40 percent) medium distinct strong brown (7.5YR 5/6) mottles with strong brown (7.5YR 5/8) borders; moderate thin platy structure; firm, slightly sticky; few fine roots; strongly acid; clear smooth boundary.

C1—23 to 34 inches; dark brown (7.5YR 4/4) silt loam; many medium distinct light brownish gray (10YR 6/2) and few fine faint yellowish brown (10YR 5/6) mottles; weak medium platy structure parting to weak medium angular blocky; firm, slightly sticky; strongly acid; clear smooth boundary.

C2—34 to 72 inches; dark yellowish brown (10YR 4/4) silt loam; few small patches of very pale brown (10YR 7/3); massive; firm, slightly sticky; moderately acid.

The thickness of the solum ranges from 20 to 36 inches. The content of rock fragments ranges from 0 to 5 percent above 40 inches and 0 to 60 percent below. Unless limed, reaction ranges from extremely acid to strongly acid in the surface and subsoil within depths of 30 inches, very strongly acid to moderately acid in the subsoil below 30 inches, and strongly acid to slightly alkaline in the substratum.

The Ap horizon has hue of 7.5YR or 10YR, value of 3 through 5, and chroma of 2 or 3. The texture is silt loam or very fine sandy loam. The horizon has weak or moderate, fine or medium granular structure.

The B horizon has hue of 7.5YR through 5Y, value of 4 or 5, and chroma of 3 through 6, and has high chroma mottles. Texture is silt loam or very fine sandy loam. The horizon has weak or moderate, thin to thick or fine to coarse, platy, prismatic or subangular blocky structure.

The C horizon has hue of 7.5YR through 5Y, value of 4 through 6, and chroma of 1 through 4. Texture is silt loam through stratified sand and gravel. The horizon is massive, single grain, or has weak platy structure.

Shaker Series

Soils of the Shaker series are very deep and poorly drained. They formed in a loamy mantle over clayey lacustrine sediments on lake plains and terraces. Slopes range from 0 to 3 percent.

Shaker soils are in a drainage sequence with moderately well drained Elmridge soils. They are near silty Unadilla and Scio soils, clayey Hudson, Rhinebeck and Madalin soils, and the sandy over clayey Cheektowaga soils.

Typical pedon of Shaker very fine sandy loam, in the Town of Malta, 1800 feet west of Ruhle Road, 700 feet north of Round Lake Road (County Route 80); USGS Round Lake topographic quadrangle; (42 degrees, 56 minutes, 16 seconds north latitude, 73 degrees, 48 minutes, 58 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) very fine sandy loam, light yellowish brown (10YR 6/4) dry; common fine distinct dark reddish brown (2.5YR 3/4) root stains; weak fine and medium granular structure; very friable; many fine roots; neutral; abrupt smooth boundary.

Bw—9 to 17 inches; olive (5Y 5/3) very fine sandy loam; many medium distinct yellowish brown (10YR 5/8) and common medium faint grayish brown (2.5Y 5/2) mottles; weak fine and medium subangular blocky structure; friable; common fine roots; neutral; clear wavy boundary.

Bg—17 to 31 inches; dark grayish brown (10YR 4/2) loam; many medium and coarse distinct dark brown (7.5YR 4/4) mottles; weak fine subangular blocky structure; very friable; few fine roots; neutral; clear wavy boundary.

2C1—31 to 46 inches; olive (5Y 4/4) silty clay; thin horizontal streaks of reddish brown (5YR 5/3, 4/4) and light yellowish brown (2.5Y 6/4); strong thin and medium platy structure; firm; neutral; clear smooth boundary.

2C2—46 to 72 inches; olive (5Y 5/3) and gray (10YR 6/1) varved silt and clay; many fine prominent brown (7.5YR 4/4) mottles; strong thin and medium platy structure; firm; neutral.

The thickness of the solum and depth to the underlying fine textured material ranges from 18 to 40 inches. The content of rock fragments ranges from 0 to 5 percent by volume in the solum, and from 0 to 3 percent in the 2C horizon. Reaction ranges from strongly acid to neutral in the solum, and moderately acid to slightly alkaline in the 2C.

The A horizon has hue of 7.5YR through 2.5Y, value of 2 through 4, and chroma of 1 through 3. Dry value is 6 or more. The texture is sandy loam through loam. Structure is weak or moderate granular.

The B horizon has hue of 7.5YR through 5Y, value of 4 through 6, and chroma of 1 through 4. Texture is sandy loam through loam. The horizon is massive or has weak or moderate granular or subangular blocky structure, and is very friable to firm.

Some pedons have silty or clayey 2B horizons. They are massive or have blocky, platy or prismatic structure, and are friable or firm. Some pedons have thin sandy layers.

The 2C horizon is neutral or has hue of 7.5YR through 5Y, value of 3 through 6, and chroma of 0 through 4. Texture is silty clay loam through clay. The horizon is massive or has platy or weak prismatic structure, and is firm or very firm.

Skerry Series

Soils of the Skerry series are very deep and moderately well drained. They formed in loamy glacial till over very firm, sandy glacial till in the Adirondack foothills. Slopes range from 0 to 8 percent.

Skerry soils are in a drainage sequence with well drained Berkshire and Becket soils, and poorly drained Lyme soils. They are near moderately deep Tunbridge soils, shallow Lyman soils, and very poorly drained Wonsqueak soils which have organic surface layers thicker than 16 inches. Also nearby are areas of Fluvaquents, which are subject to frequent flooding.

Typical pedon of Skerry fine sandy loam, gently sloping, very stony, in the Town of Edinburg, 110 feet south of Fox Hill Road, 2.1 miles east of Mason Road; USGS Edinburg topographic quadrangle; (43 degrees, 11 minutes, 00 seconds north latitude, 74 degrees, 00 minutes, 15 seconds west longitude) NAD 1927:

Oi—0 to 2 inches; slightly decomposed leaf and needle litter

Oa—2 to 4 inches; very dark gray (N3/) highly decomposed organic material, very strongly acid.

E—4 to 5 inches; dark brown (7.5YR 4/2) fine sandy loam; weak fine granular structure; friable; many fine roots; 5 percent rock fragments; very strongly acid; abrupt smooth boundary.

Bh—5 to 8 inches; very dusky red (2.5YR 2.5/2) fine sandy loam; weak medium subangular blocky structure; friable, slightly smeary; common fine roots; 10 percent rock fragments; very strongly acid; clear wavy boundary.

Bs—8 to 17 inches; dark brown (10YR 4/3) and yellowish brown (10YR 5/6) gravelly fine sandy loam; few medium distinct dark grayish brown (10YR 4/2) mottles in the lower part; weak medium angular blocky structure; friable; few fine roots; 20 percent rock fragments; very strongly acid; clear wavy boundary.

BC—17 to 26 inches; dark yellowish brown (10YR 3/4) gravelly sandy loam; common fine distinct dark grayish brown (10YR 4/2) mottles; weak medium angular blocky structure; friable; 30 percent rock fragments; strongly acid; clear smooth boundary.

Cd—26 to 72 inches; dark yellowish brown (10YR 4/4), dark brown (10YR 4/3) and light olive brown (2.5Y 5/4) gravelly sandy loam with 25 percent gravelly loamy sand plates and lenses; common fine distinct strong brown (7.5YR 4/6) mottles; massive; very firm, brittle; 30 percent rock fragments; strongly acid.

The thickness of the solum ranges from 20 to 36 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 30 percent by volume in the solum, and from 5 to 40 percent in the substratum. Reaction is very strongly acid to slightly acid in the solum, and very strongly acid to neutral in the substratum.

The O horizon is neutral or has hue of 5YR through 10YR, value of 2 through 4, and chroma 0 through 4.

Some pedons have an A horizon up to 4 inches thick that has hue of 7.5YR or 10YR, value of 2 or 3, and chroma of 1 or 2. Texture is fine sandy loam or sandy loam in the fine earth fraction.

The Ap horizon, where present, has hue of 10YR or 7.5YR, value of 3 or 4, and chroma of 2 through 4. Texture is fine sandy loam or sandy loam in the fine earth fraction.

The E horizon has hue of 5YR through 10YR, value of 4 through 6, and chroma of 1 or 2. Texture is fine sandy loam or sandy loam in the fine earth fraction.

The Bh or Bhs horizon has hue of 2.5YR through 7.5YR, value of 2 through 4, and chroma of 1 through 4.

The Bs horizon has hue of 2.5YR through 10YR, value of 1 through 6, and chroma of 3 through 8. Texture is fine sandy loam or sandy loam in the fine earth fraction.

The BC horizon, where present, has hue of 10YR through 5Y, value of 3 through 6, and chroma of 2 through 6. Texture is fine sandy loam through loamy sand in the fine earth fraction.

The E horizon, where present, has hue of 10YR through 5Y, value of 4 through 6, and chroma of 2 or 3. Typically it is coarser than the overlying B horizon.

The Cd horizon has hue of 10YR through 5Y, value of 4 through 7, and chroma of 2 through 6. The horizon is massive or single grain in lenses, or has platy structure, and is firm or very firm. Texture of sandy structural plates is loamy sand or loamy fine sand in the fine earth fraction. Texture of loamy structural plates is fine sandy loam or sandy loam in the fine earth fraction.

Sun Series

Soils of the Sun series are very deep and poorly drained or very poorly drained. They formed in glacial till in slight depressions on uplands. Slopes range from 0 to 3 percent.

Sun soils are in a drainage sequence with well drained or moderately well drained Broadalbin soils; well drained Bernardston, Paxton, and Charlton soils; moderately well drained Pittstown, Woodbridge, and Sutton soils; and somewhat poorly drained Mosherville and Massena soils. Sun soils are near moderately deep Galway or Manlius soils and shallow Farmington or Nassau soils. Also nearby are areas of Fluvaquents, which are subject to frequent flooding and Palms soils in areas that are typically ponded.

Typical pedon of Sun silt loam, in the Town of Charlton, 150 feet west of Cook Road, 0.8 mile south of NY-67; USGS Burnt Hills topographic quadrangle; (42 degrees, 57 minutes, 50 seconds north latitude, 73 degrees, 59 minutes, 25 seconds west longitude) NAD 1927:

Oe—0 to 1 inch; very dark brown (10YR 2/2) moderately decomposed grasses and forbs.

A—1 to 13 inches; very dark gray (10YR 3/1) silt loam, light brownish gray (10YR 6/2) dry; common fine faint yellowish red (5YR 4/6) mottles; moderate medium granular structure; friable; common fine roots; slightly acid; clear smooth boundary.

Bg—13 to 27 inches; dark gray (10YR 4/1) and dark grayish brown (2.5Y 4/2) silt loam; common fine distinct dark yellowish brown (10YR 4/6) mottles; moderate medium subangular blocky structure; firm; few fine roots; slightly acid; clear smooth boundary.

Bw—27 to 34 inches; olive brown (2.5Y 4/4) loam; few medium distinct gray (10YR 5/1) and common medium distinct yellowish brown (10YR 5/8) mottles; moderate medium subangular blocky structure; firm; 5 percent rock fragments; slightly acid; clear wavy boundary.

C—34 to 50 inches; dark grayish brown (10YR 4/2) cobbly fine sandy loam; common medium distinct light olive brown (2.5Y 5/4) and common fine distinct strong brown (7.5YR 4/6) mottles; massive; friable; 25 percent rock fragments (including 5 percent less than 3 inches); neutral; diffuse irregular boundary.

Cg—50 to 72 inches; mixed, dark greenish gray (5G 4/1 and 5GY 4/1) and greenish gray (5BG 5/1) cobbly loam; massive; friable; 30 percent rock fragments (including 10 percent than 3 inches); neutral.

The thickness of the solum ranges from 20 to 40 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 0 to 35 percent by volume in the solum and from 20 to 50 percent in the substratum (but average less than 35 percent in the control section).

The Ap horizon has hue of 10YR or 2.5Y, value of 2 through 4, and chroma of 1 or 2. Texture ranges from sandy loam to silt loam in the fine earth fraction. Structure is weak or moderate granular and consistence is friable or very friable. Reaction ranges from strongly acid through slightly acid.

The Bg horizon is neutral or has hue of 10YR through 5Y, value of 4 through 6, and chroma of 0 through 2, and has common to many mottles. Texture is sandy loam through silt loam in the fine earth fraction. The horizon has weak or moderate angular or subangular blocky structure, or it is massive. Reaction ranges from moderately acid through neutral.

The Bw horizon has hue of 5YR through 5Y, value of 3 through 5, and chroma of 2 through 4 with both low and high chroma mottles. Texture is sandy loam to loam in the fine earth fraction. Structure and consistence are the same as the Bg horizon. Reaction ranges from moderately acid through neutral.

The C horizon has hue of 5YR through 5Y, value of 3 through 5, and chroma of 2 through 4. Texture is sandy loam through loam in the fine earth fraction. The horizon is massive or has weak platy structure. Reaction ranges from neutral through moderately alkaline.

Sutton Series

Soils of the Sutton series are very deep and moderately well drained. They formed in glacial till on the lower side slopes of hills and on nearly level areas of till plains in the uplands. Slopes range from 0 to 8 percent.

Sutton soils are in a drainage sequence with well drained Charlton soils, somewhat poorly drained Massena soils, and very poorly drained Sun soils. They are near Paxton, Woodbridge, and Mosherville soils, which formed in compact glacial till and have a very firm substratum. They are also near Chatfield, Galway, and Newstead soils, which are 20 to 40 inches deep to bedrock, and the shallow Hollis soils.

Typical pedon of Sutton loam, 3 to 8 percent slopes, in the Town of Galway, 100 feet south of Bell Road, 1500 feet east of intersection with County Route 52 (Jockey Street), in a hay field; USGS Middle Grove topographic quadrangle; (43 degrees, 01 minute, 57 seconds north latitude, 73 degrees, 59 minutes, 37 seconds west longitude) NAD 1927:

Ap—0 to 9 inches; dark brown (10YR 3/3) loam, pale brown (10YR 6/3) dry; moderate medium granular structure; very friable; common fine and medium roots; 5 percent rock fragments; moderately acid; abrupt wavy boundary.

Bw1—9 to 17 inches; brown (7.5YR 4/4) fine sandy loam; common fine distinct strong brown (7.5YR 5/8) and common fine faint dark brown (7.5YR 3/4) mottles; weak medium subangular blocky structure; friable; common fine roots; 5 percent rock fragments; moderately acid; gradual wavy boundary.

Bw2—17 to 24 inches; dark yellowish brown (10YR 4/4) sandy loam; few fine distinct strong brown (7.5YR 5/6) and few fine faint gray (7.5YR 6/1) mottles; weak medium subangular blocky structure; friable; few fine roots; 5 percent rock fragments; moderately acid; gradual wavy boundary.

Bw3—24 to 30 inches; yellowish brown (10YR 5/6) sandy loam; common fine distinct strong brown (7.5YR 4/6) and grayish brown (10YR 5/2) mottles; weak medium subangular blocky structure; friable; 10 percent rock fragments; moderately acid; gradual wavy boundary.

C—30 to 72 inches; olive brown (2.5Y 4/4) sandy loam; common fine distinct strong brown (7.5YR 4/6) and grayish brown (2.5Y 5/2), and few fine distinct strong brown (7.5YR 5/8) mottles; massive; friable; 10 percent rock fragments; moderately acid. At 32 inches there is a 4-inch thick layer of silt loam, with similar colors and more abundant mottles.

The thickness of the solum ranges from 20 to 38 inches. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 35 percent by volume above 40 inches, and up to 50 percent below. Reaction ranges from very strongly acid to moderately acid throughout.

The Ap horizon has hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 through 4. It is fine sandy loam through loam in the fine earth fraction. It has weak, medium, or coarse granular structure, and is friable or very friable.

The Bw1 and Bw2 horizons have hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 through 6. The Bw3 horizon has hue of 10YR through 5Y, value and chroma of 4 through 6, and distinct or prominent mottles of high and low chroma. Texture of the B horizon is sandy loam through loam in the fine earth fraction. The horizon is massive or has weak subangular blocky, granular, or platy structure, and is friable or very friable.

The C horizon has hue of 10YR through 5Y, value of 4 through 6, and chroma of 2 through 4. Texture is dominantly fine sandy loam or sandy loam in the fine earth fraction. Some pedons have pockets or layers of silt loam, loamy sand, or sand. The horizon is massive or has platy structure, and is very friable through firm.

Teel Series

Soils of the Teel series are very deep and moderately well drained. They formed in recent alluvium on floodplains. Slopes range from 0 to 3 percent.

Teel soils are in a drainage sequence with well drained Tioga soils, poorly drained Limerick soils, and very poorly drained Saco soils. They are near coarse silty Unadilla, Scio, and Raynham soils, which are on terraces. Also nearby are areas of Fluvaquents, which are subject to frequent flooding, and Udipsamments along the Erie and Champlain Canals.

Typical pedon of Teel silt loam, in the Town of Stillwater, (Griffen farm) 200 feet north of a farm lane behind barns, 1500 feet east of U.S. Route 4; USGS Schaghticoke topographic quadrangle; (42 degrees, 58 minutes, 56 seconds north latitude, 73 degrees, 37 minutes, 02 seconds west longitude) NAD 1927:

Ap—0 to 12 inches; dark grayish brown (10YR 4/2) silt loam; few fine distinct yellowish brown (10YR 5/8) mottles; moderate fine and medium granular structure; friable; common fine roots; neutral (limed); abrupt smooth boundary.

Bw1—12 to 24 inches; brown (10YR 5/3) silt loam; common fine faint dark grayish brown (10YR 4/2) and common fine distinct dark yellowish brown (10YR 4/6) mottles; moderate medium subangular blocky structure; friable; few fine roots; strongly acid; clear smooth boundary.

Bw2—24 to 38 inches; dark brown (10YR 4/3) silt loam; many medium prominent dark yellowish brown (10YR 3/6) and common fine distinct brownish yellow (10YR 6/8) mottles; moderate medium subangular blocky structure; friable; few fine roots; thin discontinuous light brownish gray (10YR 6/2) silt coats on ped faces and in pores; moderately acid; clear smooth boundary.

C1—38 to 44 inches; yellowish brown (10YR 5/4) silt loam; many medium distinct dark brown (7.5YR 4/4), common medium distinct light brownish gray (10YR 6/2) and strong brown (7.5YR 5/6) mottles; weak thick platy structure; friable; thin discontinuous grayish brown (10YR 5/2) silt coats on ped faces and in pores; moderately acid; clear smooth boundary.

C2—44 to 72 inches; yellowish brown (10YR 5/4) very fine sandy loam; many medium distinct dark brown (7.5YR 4/4), common medium distinct light brownish gray (10YR 6/2) and strong brown (7.5YR 5/6) mottles; massive; friable; moderately acid.

The thickness of the solum ranges from 24 to 50 inches. The content of rock fragments ranges from 0 to 5 percent by volume in the surface and subsoil, and up to 15 percent in the substratum. Reaction is strongly acid to neutral above 30 inches, and moderately acid to slightly alkaline below.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 through 3. The texture is silt loam or very fine sandy loam.

The B horizon has hue of 10YR or 2.5Y, value of 3 through 5, and chroma of 2 through 4, and it is mottled. Texture is silt loam or very fine sandy loam.

The C horizon has hue of 10YR, value of 3 through 5, and chroma of 1 through 4, and it is mottled. Texture is silt loam or very fine sandy loam.

Tioga Series

Soils of the Tioga series are very deep and well drained. They formed in recent alluvium on floodplains. Slope ranges from 0 to 3 percent.

Tioga soils are in a drainage sequence with moderately well drained Teel soils, poorly drained Limerick soils and very poorly drained Saco soils. They are near coarse silty Unadilla, Scio and Raynham soils, which are on terraces. Also nearby are areas of Fluvaquents, which are subject to frequent flooding.

Typical pedon of Tioga fine sandy loam, in the Town of Saratoga, 800 feet east of U.S. Route 4, 1/4 mile south of Village of Schuylerville line; USGS Schuylerville topographic quadrangle; (43 degrees, 05 minutes, 27 seconds north latitude, 73 degrees, 34 minutes, 51 seconds west longitude) NAD 1927:

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

Bw1—9 to 18 inches; brown (10YR 4/3) fine sandy loam; weak medium granular structure; very friable; few medium roots; neutral; abrupt smooth boundary.

Bw2—18 to 29 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; very friable; few medium roots; neutral; abrupt smooth boundary.

C—29 to 72 inches; light olive brown (2.5Y 5/4) fine sandy loam; massive; very friable; few medium roots; neutral.

The thickness of the solum ranges from 18 to 40 inches. The content of rock fragments (generally pebbles or small shale chips) ranges from 0 to 35 percent by volume in the solum and from 0 to 60 percent in the substratum. Reaction is strongly acid to neutral in the solum, and moderately acid to slightly alkaline in the substratum.

The Ap horizon has hue of 7.5YR through 2.5Y, value of 3 through 5, and chroma of 2 through 4. The texture is silt loam through fine sandy loam in the fine earth fraction.

The B horizon has hue of 7.5YR through 2.5Y, value of 3 through 5, and chroma of 2 through 4. The texture is silt loam through fine sandy loam in the fine earth fraction. Individual subhorizons may have texture of sandy loam or loamy sand. The horizon has weak or moderate, granular or subangular blocky structure, and is friable or very friable.

The C horizon has hue of 7.5YR through 2.5Y, value of 4 or 5, and chroma of 2 through 4. Texture is silt loam through loamy sand in the fine earth fraction. Consistence is loose to friable.

Tunbridge Series

Soils of the Tunbridge series are moderately deep and well drained. They formed in loamy glacial till on bedrock controlled landscapes in the Adirondack foothills. Slopes range from 3 to 50 percent.

Tunbridge soils are associated with very deep Becket and Berkshire soils and shallow Lyman soils. They are often near moderately well drained Skerry soils and poorly drained Lyme soils.

Typical pedon of Tunbridge loam, from an area of Berkshire-Tunbridge complex, strongly sloping, very bouldery, in the Town of Edinburg, 100 feet north of Fox Hill Road, 1.4 miles east of Mason Road; USGS Edinburg topographic quadrangle; (43 degrees, 11 minutes, 13 seconds north latitude, 74 degrees, 00 minutes, 58 seconds west longitude) NAD 1927:

Oi—0 to 2 inches; slightly decomposed mat of hardwood leaves.

Oa—2 to 4 inches; very dark gray (N 3/0) highly decomposed organic material; extremely acid.

A—4 to 6 inches; dark brown (7.5YR 3/2) loam; moderate fine granular structure; friable; 5 percent rock fragments; many fine roots; very strongly acid; abrupt smooth boundary.

E—6 to 7 inches; reddish gray (5YR 5/2) fine sandy loam; weak fine granular structure; friable; 5 percent rock fragments; common fine roots; very strongly acid; abrupt smooth boundary.

Bh—7 to 9 inches; dark reddish brown (5YR 2.5/2) loam; weak fine granular structure; friable; 5 percent rock fragments; few medium, common fine roots; very strongly acid; abrupt smooth boundary.

Bs—9 to 16 inches; dark brown (7.5YR 4/4), strong brown (7.5YR 5/6) and yellowish red (5YR 4/6) sandy loam; weak medium subangular blocky structure; friable; 5 percent rock fragments; very strongly acid; few medium, common fine roots; clear smooth boundary.

BC—16 to 26 inches; dark brown (7.5YR 3/4, 4/4) sandy loam; moderate medium angular blocky structure; friable; 5 percent rock fragments; strongly acid; few fine roots; clear smooth boundary.

C—26 to 31 inches; dark yellowish brown (10YR 4/4) sandy loam; weak medium angular blocky structure; firm; 10 percent rock fragments; strongly acid.

R—31 inches; unweathered gneiss bedrock.

The thickness of the solum ranges from 14 to 38 inches. Depth to bedrock ranges from 20 to 40 inches. The content of rock fragments ranges from 5 to 35 percent throughout the soil. Reaction ranges from extremely acid to moderately acid in the solum and from strongly acid to slightly acid in the substratum. Texture is typically sandy loam through loam in the fine earth fraction, but horizons of silt loam are allowed.

The A horizon is neutral or has hue of 5YR through

10YR, value of 2 through 5, and chroma of 0 through 4.

The E horizon has hue of 5YR through 10YR, value of 4 through 6, and chroma of 1 or 2.

The Bh horizon is neutral in color or has hue of 5YR through 10YR, value of 2 or 3, and chroma of 0 through 2.

The Bhs horizon, where present, has hue of 5YR through 10YR, value and chroma of 3 or less.

The Bs horizon has hue of 5YR through 2.5Y, value and chroma of 4 or more.

The BC horizon has hue of 7.5YR through 2.5Y, value of 3 through 5, and chroma of 3 through 8.

The C horizon has hue of 10YR through 5Y, value of 4 through 6, and chroma of 2 through 6.

Udipsamments

Udipsamments consist of very deep to shallow, excessively drained to moderately well drained sandy soils. There are two main areas of these soils. The most numerous areas are the result of dredging operations along the Hudson and Mohawk Rivers. Most areas are within a half-mile of the river. Material has usually been pumped into piles or large areas surrounded by berms of soil material. Slopes are irregular and complex, ranging from 0 to 25 percent. The other areas are in the Adirondack region along streams.

Udipsamments are commonly near Teel, Limerick, or Fluvaquents soils on floodplains, and Manlius or Nassau soils adjacent to the Erie or Champlain canal locks.

Because Udipsamments differ from place to place, no typical pedon is described.

Udipsamments have no soil profile development. Typically, the texture of the material is loamy sand or sand, with layers of silty material or gravel at varying depths. Subsurface layers are weakly stratified because of occasional new deposits on the surface. Depth of the dredged material is generally more than 72 inches.

Udorthents

Udorthents consist of very deep, excessively drained to somewhat poorly drained soils or soil material that has been disturbed. Slopes range from 0 to 8 percent.

Udorthents occur mostly as landfills, borrow pits, or construction sites throughout the county. Former soil horizons have been buried, removed, or truncated.

These soils are named above the series level in the soil classification system because of variability in the material and a lack of soil features that would permit more detailed classification. For these reasons a typical pedon of Udorthents is not provided.

Udorthents have textures of silt loam to sand with rock fragment content ranging from 0 to 80 percent by volume. Depth to bedrock is usually greater than 72 inches.

Colors in the surface and subsurface horizons range in hue from 2.5YR to 2.5Y with value of 3 to 6, and chroma of 2 to 8. Reaction is very strongly acid to slightly acid. Consistence and structure are variable.

Unadilla Series

Soils of the Unadilla series are very deep and well drained. They formed in deposits of silt and very fine sand on glacial lake plains. Slopes range from 3 to 15 percent.

Unadilla soils are in a drainage sequence with moderately well drained Scio soils and somewhat poorly drained Raynham soils. They are near Elmridge and Shaker soils having loamy over clayey deposits; Hudson, Rhinebeck, and Madalin soils which formed in clayey sediments; and Oakville or Windsor soils which formed in sandy outwash deposits. Also on nearby floodplains are recently deposited loamy Tioga, Teel, Saco, and Limerick soils.

Typical pedon of Unadilla very fine sandy loam, 3 to 8 percent slopes, in the Town of Clifton Park, 100 feet west of access road, 400 feet south of a 90 degree turn on old Boneau Road to Stony Creek Reservoir; USGS Niskayuna topographic quadrangle; (42 degrees, 49 minutes, 09 seconds north latitude, 73 degrees, 48 minutes, 33 seconds west longitude) NAD 1927:

Oi—0 to 2 inches; slightly decomposed litter of leaves, and roots of small plants.

Ap—2 to 8 inches; dark brown (10YR 3/3) very fine sandy loam, pale brown (10YR 6/3) dry; weak fine granular structure; very friable; many fine roots; very strongly acid; abrupt smooth boundary.

Bw1—8 to 20 inches; yellowish brown (10YR 5/6) very fine sandy loam; moderate medium subangular blocky structure; friable; common fine roots; very strongly acid; clear smooth boundary.

Bw2—20 to 32 inches; yellowish brown (10YR 5/6) very fine sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; strongly acid; clear smooth boundary.

Bw3—32 to 42 inches; yellowish brown (10YR 5/6) very fine sandy loam; weak medium subangular blocky structure; firm; few medium roots; very strongly acid; clear smooth boundary.

2C—42 to 72 inches; yellowish brown (10YR 5/4) loamy very fine sand; few patches of light yellowish brown (10YR 6/4) loamy very fine sand; massive; firm; strongly acid.

Solum thickness ranges from 20 to 50 inches. Depth to bedrock is greater than 60 inches. Rock fragments range from 0 to 5 percent by volume in the solum, and 0 to 60 percent in the substratum. Reaction ranges from very strongly acid to moderately acid in the solum and strongly acid to slightly alkaline in the substratum.

The A horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 through 4. Texture is silt loam or very fine sandy loam.

The Bw horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 4 through 6. Texture is silt loam or very fine sandy loam.

The C horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 through 4. Texture is silt loam or very fine sandy loam above 40 inches, but ranges from fine sandy loam to sand below. The horizon is massive, single grain, or has weak platy structure.

Wareham Series

Soils of the Wareham series are very deep, somewhat poorly and poorly drained. They formed in water sorted sand on glacial outwash plains, lake plains, and deltas. Slopes range from 0 to 3 percent.

Wareham soils are in a drainage sequence with excessively drained Windsor soils, well drained Oakville soils, moderately well drained Deerfield soils, and very poorly drained Scarboro soils. They are near the loamy and gravelly Chenango soils, the sandy over clayey Cosad or Cheektowaga soils, the silty Raynham soils, and the clayey Rhinebeck soils.

Typical pedon of Wareham loamy sand, in the Town of Halfmoon, 75 feet west of the entrance road, 830 feet north of Sitterly Road, Twin Lakes Apartments; USGS Niskayuna topographic quadrangle; (42 degrees, 51 minutes, 10 seconds north latitude, 73 degrees, 46 minutes, 10 seconds west longitude) NAD 1927:

Oi—0 to 2 inches; very dark brown (10YR 2/2) slightly decomposed organic material consisting of leaves, twigs, grass, and live and dead roots; very strongly acid; abrupt smooth boundary.

A—2 to 8 inches; very dark gray (10YR 3/1) loamy sand, grayish brown (10YR 5/2) dry; few fine faint yellowish brown (10YR 5/8) mottles; weak medium granular structure; very friable; many fine and medium, few coarse roots; very strongly acid; abrupt smooth boundary.

Bg—8 to 11 inches; light brownish gray (10YR 6/2) loamy sand; few fine faint yellowish brown (10YR 5/8) mottles; weak fine subangular blocky structure; friable; common fine, few medium roots; very strongly acid; abrupt wavy boundary.

Bw—11 to 19 inches; yellowish brown (10YR 5/4) loamy sand; common fine distinct strong brown (7.5YR 5/8) mottles; weak medium subangular blocky structure; friable; few fine roots; strongly acid; clear smooth boundary.

Cg—19 to 72 inches; light brownish gray (10YR 6/2) sand; common medium distinct strong brown (7.5YR 5/6) mottles; massive, single grain in the lower part; very friable; strongly acid.

The thickness of the solum ranges from 17 to 26 inches. Depth to bedrock is greater than 60 inches. The reaction ranges from extremely acid to strongly acid throughout. The content of rock fragments makes up 0 to 15 percent by volume above 40 inches, and 0 to 60 percent below.

The A horizon has hue of 10YR or 2.5Y, value of 2 or 3, and chroma of 1 or 2. The dry value is 5 or less. Texture is loamy fine sand or loamy sand in the fine earth fraction. Structure is weak, fine, or medium granular.

The B horizon has hue of 7.5YR or 10YR, value of 4 through 6, and chroma of 1 through 4. Texture is loamy fine sand, loamy sand or sand in the fine earth fraction.

The C horizon has hue of 10YR or 2.5Y, value of 4 through 6, and chroma of 1 through 3. It is loamy fine sand to coarse sand in the fine earth fraction, and may have lenses of fine sandy loam below 40 inches. The horizon is massive or single grain, and is loose or very friable.

Windsor Series

Soils of the Windsor series are very deep and excessively drained. They formed in water-sorted sand on glacial outwash plains, kames, and terraces. Slopes range from 0 to 35 percent.

Windsor soils are in a drainage sequence with well drained Oakville soils, moderately well drained Deerfield soils, somewhat poorly drained and poorly drained Wareham soils and very poorly drained Scarboro soils. They are near gravelly Hoosic or

Hinckley soils, the sandy over clayey Claverack and Cosad soils, the loamy Bernardston and Pittstown soils, and the silty Raynham, Scio, and Unadilla soils.

Typical pedon of Windsor loamy sand, nearly level, in the Town of Moreau, 1200 feet east of Potter Road, 2000 feet south of Butler Road, in a pine plantation; USGS Glens Falls topographic quadrangle; (43 degrees, 15 minutes, 25 seconds north latitude, 73 degrees, 42 minutes, 28 seconds west longitude) NAD 1927:

Oe—0 to 2 inches; moderately decomposed pine needles.

Ap—2 to 11 inches, very dark grayish brown (10YR 3/2) loamy sand; weak fine granular structure; very friable; many fine and few medium roots; strongly acid; abrupt wavy boundary.

Bw1—11 to 21 inches; yellowish brown (10YR 5/6) loamy sand; weak fine granular structure; very friable; many fine and few medium roots; strongly acid; gradual wavy boundary.

Bw2—21 to 25 inches; yellowish brown (10YR 5/4) sand; single grain; loose; strongly acid; clear wavy boundary.

C—25 to 72 inches; light yellowish brown (10YR 6/4) sand; single grain; loose; strongly acid.

The thickness of the solum ranges from 18 to 36 inches. Depth to bedrock is greater than 60 inches. The reaction is very strongly acid to moderately acid in the solum, and very strongly acid to slightly acid in the C horizon.

The A horizon has hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 1 through 3. Texture is loamy fine sand or loamy sand.

The B horizon has hue of 7.5YR through 2.5Y, value of 4 through 6, and chroma of 4 through 8 in the upper part, and chroma of 3 through 6 in the lower part. Texture is loamy fine sand or loamy sand in the upper part, and loamy fine sand, loamy sand, fine sand or sand in the lower part. Structure is granular or subangular blocky, or the horizon is massive or single grain.

The C horizon has hue of 5YR through 5Y, value of 4 through 7, and chroma of 2 through 6. It is sand or loamy sand.

Wonsqueak Series

Soils of the Wonsqueak series are very deep and very poorly drained. They formed in well-decomposed organic material overlying mineral soil in the Adirondack foothills. The loamy material is at a depth of 16 to 51 inches. Wonsqueak soils are in depressional areas or basins that were formerly lakes or ponds. They receive runoff water from surrounding areas. Slopes are less than 2 percent.

Wonsqueak soils are near sandy Allagash soils, and the Skerry and Lyme soils which formed in fine sandy glacial till.

Typical pedon of Wonsqueak muck, ponded, in the Town of Greenfield, 100 feet west of Lake Desolation Road, 4 miles north of Middle Grove; USGS Porter Corners topographic quadrangle; (43 degrees, 07 minutes, 44 seconds north latitude, 73 degrees, 58 minutes, 12 seconds west longitude) NAD 1927:

Oa1—0 to 13 inches; black (10YR 2/1) broken face sapric material (muck), black (5YR 2.5/1) rubbed; 15 percent fiber (undisturbed); weak fine granular structure; slightly sticky; few fine roots; moderately acid in calcium chloride; clear smooth boundary.

Oa2—13 to 31 inches; black (5YR 2.5/1) broken face sapric material (muck), black (10YR 2/1) rubbed; 30 percent fiber (undisturbed); contains a 2-inch thick layer of woody fibers about 0.5 to 1 inch in size; massive; non-sticky; moderately acid in calcium chloride; abrupt wavy boundary.

2Cg—31 to 72 inches; gray (5Y 5/1) fine sandy loam; few fine distinct olive (5Y 5/4) mottles; massive; slightly sticky, non-plastic; slightly acid in calcium chloride.

The depth to the contrasting loamy mineral material ranges from 16 to 51 inches. The organic layers are almost exclusively highly decomposed herbaceous material, but may contain some woody fibers. Rock fragments in the substratum range from 0 to 20 percent by volume. Reaction in calcium chloride of the organic layers is extremely acid to slightly acid (but is very strongly acid to slightly acid in at least one subhorizon), and is strongly acid to neutral in the substratum.

The surface tier has hue of 2.5YR through 10YR, value of 2 or 3, and chroma of 1 or 2.

The subsurface tier has hue of 2.5YR through 10YR, value of 2 or 3, and chroma of 1 or 2.

The mineral C horizon is neutral or has hue of 5Y to 5GY, value of 3 through 6, and chroma of 0 through 4. Texture ranges from fine sandy loam through silty clay loam.

Woodbridge Series

Soils of the Woodbridge series are very deep and moderately well drained. They formed in compact glacial till deposits derived mainly from granite, schist, and gneiss. They are on the sides of hills in the uplands, and on till plains. Slopes range from 3 to 8 percent.

Woodbridge soils are in a drainage sequence with well drained Paxton soils and poorly drained Sun soils. Woodbridge soils are near Charlton and Sutton soils, which do not have a restrictive layer in the substratum, and the somewhat poorly drained Massena soils, which have a less dense substratum. They are also near moderately deep Chatfield soils and shallow Hollis soils.

Typical pedon of Woodbridge loam, 3 to 8 percent slopes, in the Town of Galway, in a wooded area, 700 feet south of NY Route 29, 60 feet east of Spring Road; USGS Galway topographic quadrangle; (43 degrees, 03 minutes, 37 seconds north latitude; 74 degrees, 06 minutes, 19 seconds west longitude) NAD 1927:

A—0 to 5 inches; very dark grayish brown (10YR 3/2) loam; light brownish gray (10YR 6/2) dry; weak fine granular structure; friable; common fine roots; 5 percent rock fragments; very strongly acid; clear wavy boundary.

Bw1—5 to 16 inches; dark brown (7.5YR 3/4) loam; common fine distinct yellowish brown (10YR 5/8) mottles; weak medium subangular blocky structure; friable; few fine roots; 5 percent rock fragments; very strongly acid; clear wavy boundary.

Bw2—16 to 26 inches; dark brown (10YR 4/3) fine sandy loam; few fine faint grayish brown (10YR 5/2) mottles below 20 inches; weak medium subangular blocky structure; friable; few fine roots; 10 percent rock fragments; strongly acid; clear smooth boundary.

Cd—26 to 72 inches; olive brown (2.5Y 4/4) sandy loam; common fine distinct yellowish brown (10YR 5/8) and grayish brown (10YR 5/2) mottles; massive; firm, brittle; 10 percent rock fragments; moderately acid.

The thickness of the solum ranges from 18 to 40 inches and commonly corresponds to the depth to the dense substratum. Depth to bedrock is greater than 60 inches. The content of rock fragments ranges from 5 to 35 percent by volume throughout the soil. Reaction ranges from very strongly acid to moderately acid throughout the soil.

The A horizon has hue of 10YR, value of 3 or 4, and chroma of 2 through 4. Texture ranges from sandy loam to loam in the fine earth fraction. The horizon is friable or very friable.

The upper part of the B horizon has hue of 7.5YR, value of 3 through 5, and chroma of 3 through 6. The lower part of the B horizon has hue of 10YR, value of 4 or 5, and chroma of 3 through 5, and has distinct or prominent mottles. Texture is sandy loam, fine sandy loam, or loam in the fine earth fraction. The horizon has weak medium subangular blocky or weak granular structure, and is friable or very friable.

The Cd horizon has hue of 2.5Y or 5Y, value of 4 through 6, and chroma of 2 through 4, and has distinct or prominent mottles. Texture is sandy loam through loam in the fine earth fraction. The horizon has weak medium or thick platy structure, or is massive. Consistence is very firm and brittle.

Woodstock Series

Soils of the Woodstock series are shallow and somewhat excessively drained. They formed in shallow glacial till in the Adirondack foothills. They are on the tops and sides of bedrock controlled ridges. Slopes range from 3 to 35 percent.

Woodstock soils are near areas of rock outcrop, and very deep Bice and Schroon soils.

Typical pedon of Woodstock sandy loam, from an area of Bice-Woodstock complex, steep, stony, in the Town of Moreau, 100 feet east of County Route 24, 2000 feet south of Spier Falls dam; USGS Corinth topographic quadrangle; (43 degrees, 13 minutes, 44 seconds north latitude, 73 degrees, 45 minutes, 34 seconds west longitude) NAD 1927:

Oe—0 to 1 inch; moderately decomposed organic material (leaf litter).

A—1 to 3 inches; very dark brown (10YR 2/2) sandy loam, weak fine granular structure; very friable; common fine and few medium roots; 10 percent rock fragments; strongly acid; abrupt smooth boundary.

Bs1—3 to 10 inches; dark brown (7.5YR 3/4) sandy loam; weak fine granular structure; friable; few fine and medium roots; 10 percent rock fragments; strongly acid; clear smooth boundary.

Bs2—10 to 16 inches; dark brown (7.5YR 3/4) gravelly sandy loam; moderate medium subangular blocky structure; friable; few fine roots; 20 percent rock fragments (30 percent greater than 3 inches); strongly acid; abrupt wavy boundary.

R—16 inches; unweathered gneiss bedrock.

The thickness of the solum and depth to bedrock range from 10 to 20 inches. The content of rock fragments ranges from 5 to 35 percent by volume throughout the solum. Reaction is strongly acid to slightly acid throughout.

The A horizon has hue of 7.5YR through 2.5Y, value of 2 through 5, and chroma of 1 through 3. Texture is sandy loam or fine sandy loam in the fine earth fraction.

The B horizon has hue of 7.5YR through 2.5Y, value of 2 through 4, and chroma of 2 through 6. Texture is sandy loam or fine sandy loam in the fine earth fraction. Structure is weak or moderate, very fine to medium granular or subangular blocky, and consistence is friable or very friable.

Some pedons have a C horizon. It has hue of 5YR through 2.5Y, value of 2 through 4, and chroma of 1 through 3. Texture is loamy fine sand, sandy loam or fine sandy loam in the fine earth fraction.

The R horizon is schist or gneiss.

Formation of the Soils

The first part of this section describes the factors of soil formation and relates them to the formation of the soils in the survey area. The second part defines the processes of soil horizon development as they relate to soil formation in Saratoga County.

Factors of Soil Formation

Soils are products of weathering and other physical and chemical processes that act on parent material. The properties of the soil in any given area depend on the combination of soil-forming factors in the area. These factors are the physical and chemical composition of the parent material, climate, plant and animal life, topography, and time. The relative influence of each of these factors differs from place to place, and each modifies the effect of the other four. For example, the impact of climate over a given area is tempered by relief or parent material. In many areas, the influence of a single factor is dominant.

Parent Material

Parent material is the unconsolidated earthy material in which soils are formed. It influences the physical, chemical, and mineralogical composition of the soils. It also influences the rate at which soil-forming processes will proceed.

Most of the soils in Saratoga County formed in deposits left as a result of glaciation. Glacial till is the most extensive type of parent material. Less extensive are glacial outwash, alluvial deposits, lacustrine, and organic deposits.

Soils that formed in glacial till have a wide range of characteristics as a result of the heterogeneous mixture of rock and soil particles. Some soils such as Becket, Bernardston, and Paxton, which are formed in very deep glacial till deposits, have a dense substratum. Other soils such as Berkshire, Bice, and Charlton, which are formed in very deep, coarser textured till, do not have a dense substratum. In some places, the glacial till is moderately deep or shallow over bedrock. Tunbridge is moderately deep to granite, gneiss or schist. Galway is moderately deep to Limestone or calcareous sandstone. Hollis is shallow to granite, gneiss, or schist, while Nassau is shallow to shale bedrock. Some areas have bedrock exposed at the surface. Rock outcrop is included when mapping in these areas.

As the glacial ice melted, large quantities of meltwater transported and sorted soil and rock debris. This material is referred to as glacial outwash and was redeposited in layers of sand and gravel on outwash plains and terraces. Colton, Hinckley, and Hoosic are examples of gravelly soils formed in this material. Oakville and Windsor are examples of sandy soils formed in this material. These soils are coarse textured.

Where these meltwaters accumulated in ice blocked lakes, fine clayey material accumulated below the still bodies of water. These materials are often stratified, and are very sensitive to changes in moisture content. Hudson and Unadilla are examples of these soils.

In some recent times, overflowing streams have deposited alluvial material on the floodplains. This material tends to be variable in texture. Examples of soils formed in this material are Tioga and Teel, which formed in moderately fine textured alluvium, and Fluvaquents, which have not yet developed diagnostic characteristics.

Soils formed in organic deposits are mainly in closed depressions in the uplands and along the Hudson River. Wonsqueak and Palms are examples of soils formed in well-decomposed organic material.

Topography

The shapes of the land surface, or topography, is commonly called the lay of the land. Topography, the slope, and the position of the land surface in relation to the water table have had a great influence on the soil formation in the county.

Soils that formed in convex positions, where little or no runoff accumulates, are generally well drained and do not contain gray mottles in the subsoil. Examples of soils in this category are Bernardston and Charlton. In level or slightly depressional areas, the water table is usually closer to the surface for extended periods. This results in gray mottling close to the surface and often, accumulation of sediment at the surface.

Some soils are wet because they occupy a position where water accumulates. Sun and Madalin soils are examples. A few low-lying soils, for example, Cheektowaga, have restricting layers on which water is perched during part of the year.

Local differences in soils are largely the result of differences in parent material and topography. Table 26 shows the relationship between the soils, their parent materials, landscape position, and drainage.

Climate

Climate, in particular temperature and precipitation, is one of the most influential of the soil-forming factors. It determines to a large degree the kind of weathering processes that occur. It also affects the growth and kind of vegetation and the leaching and translocation of weathered materials.

Most of Saratoga County has a humid, temperate climate that tends to promote the development of moderately weathered, leached soils. The northwestern portion of the county, which is in the foothills of the Adirondack Mountains, has a humid frigid climate that tends to promote the accumulation of organic matter and iron compounds in the subsoil. More detailed and specific data on the climate of Saratoga County is in the climate section under “General Nature of the Survey Area”.

Plant and Animal Life

All living organisms, including plants, animals, bacteria, and fungi, influence soil formation. Vegetation is generally responsible for the amount of organic matter and nutrients in the soil and for the color and structure of the surface layer. Earthworms and burrowing animals help to keep the soil porous and more permeable by air and water. Their waste products cause aggregations of soil particles and improve soil structure. Bacteria and fungi decompose vegetation, which results in the release of nutrients.

This survey area was originally in native forest consisting of northern hardwoods and conifers. The loss of nutrients through leaching is slow under hardwoods because they take up large quantities of nutrients and return much of them to the soil surface each year as leaf litter. Conifers, such as pines, do not use large amounts of nutrients; therefore, leaching is more rapid than it is under hardwoods.

Because the rooting depth is shallow in many of the upland soils, trees are susceptible to windthrow, which has caused much mixing of the soil materials.

Human activities that influence changes in the soils include clearing of trees, cultivating the land, adding nutrients by fertilizing, mixing some soil horizons by plowing, and accelerating erosion in many areas.

Time

The degree of profile development not only reflects the age of a soil but it also reflects the influences of other factors. In geological terms, the deposits in which soils formed in the survey area are relatively young, being deposited when the last glacier receded about 10,000 to 15,000 years ago. The soils have not all reached the same stage of soil profile development because the other soil-forming factors also influence the rate of soil profile development. The time factor is constant within the county; the difference in the appearance and the depth of the weathering is more a function of the differences in the parent material.

An immature soil is one that has not had enough time to develop distinct horizons. Fluvaquents is a good example. They formed in recent alluvium, which is regularly being flooded, with more sediment deposited so the time for soil development is constantly interrupted and thin or irregular soil profiles develop.

Processes of Soil Formation

This section contains a brief explanation of soil horizon nomenclature and a discussion of the processes involved in soil horizon development as they relate to soil formation.

The soil-forming factors cause the formation of different layers, or soil horizons. These soil horizons can be viewed in a vertical cut of soil, known as a soil profile. The soil profile extends from the surface downward into material that is little altered by the soil-forming processes. Most soils contain three major horizons, called A, B, and C horizons.

Several processes cause the formation of soil horizons. They include the accumulation of organic matter, the leaching of soluble salts and minerals, the translocation of clay minerals, the reduction and transfer of iron, and the formation of dense and compact layers in the subsoil.

The accumulation of organic matter takes place as plant residue decomposes. This process darkens the surface layer and helps to form the A1 horizon. It takes a long time to replace this organic matter once is has been lost. The organic matter content of the surface layer of soils in the survey areas averages about 4 percent.

For soils to develop a distinct subsoil, some of the lime and other soluble salts must be leached before other soil processes such as translocations of clay mineral can take place. Factors that affect leaching include the kinds of salts originally present, the rate and depth of percolation, and the texture of the soils.

One of the more important processes of soil horizon development is some of the soils in the translocation of silicate clay minerals. The amount of clay minerals in a soil is inherent in the parent material, but clay content varies from one soil horizon to another. Clay particles are transported (eluviated) downward from the A horizon and redeposited (illuviated) in the B horizon as clay films on ped faces, as linings along pores and root channels, and as coatings on some coarse fragments. In some soils, an E horizon has formed by considerable eluviation of clay minerals to the B horizon. The Nunda soil is an example of a soil where the clay content is higher in the B horizon than in the A horizon because of translocation.

The reduction and transfer of iron compounds occur mainly in the wetter, more poorly drained soils. This process is known as gleying. In poorly drained and very poorly drained soils, such as Sun soils, the grayish subsoil indicates the reduction of iron. In moderately well drained and somewhat poorly drained soils, such as Mosherville soils, yellowish brown and reddish brown mottles indicate the segregation of iron compounds. A bright-colored, unmottled subsoil indicates a well drained soil where no reduction and transfer of iron have taken place. Oakville soils are an example.

References

(1) American Association of State Highway and Transportation Officials (AASHTO). 1970. Standard specifications for highway materials and methods of sampling and testing. 10th edition, 2 volumes.

(2) American Society for Testing and Materials (ASTM). 1974. Method for classification of soils for engineering purposes. ASTM Standard D 2487-69.

(3) Broughton, J.G., et al, 1976, Geology of New York: A Short Account, Educational Leaflet 20 and map series- The University of the State of New York/ State Education Department, New York State Museum, Albany.

(4) Cadwell, D.H. and R.J. Dineen, 1987, Surficial Geologic Map of New York, “Hudson-Mohawk Sheet”, The University of the State of New York/ State Education Department, New York State Museum, Albany.

(5) Cornell Cooperative Extension Service, 1993, Cornell Recommends for Integrated Field Crop Management.

(6) Cornell Cooperative Extension, Saratoga County, 1989, Agriculture–The Agricultural Industry: Its Impact and Future.

(7) Heath, R.C., et al, 1963, Ground-water Studies in Saratoga County, New York, U.S. Geological Survey and New York Water Resources Commission Bulletin GW-49.

(8) Johnstone, Jan and Saratoga County Planning Board, 1980, Saratoga County Committee, An Historic Perspective.

(9) Maxon, E.T., and J.H. Bromley, 1919, Soil Survey of Saratoga County, New York, USDA Bureau of Soils and NY State College of Agriculture.

(10) New York State Department of Environmental Conservation, 1981, Forest Related Fish and Game, Forest Resources Assessment Report No. 9.

(11) Saratoga County Planning Board, April 1975, General Geologic History of Saratoga County and an Evaluation of Related Resources, 22 pages.

(12) Saratoga County Planning Board, 1977, Overall Economic Development Plan for Saratoga County.

(13) Saratoga County Planning Board, 1978, Saratoga County Land Use and Development Plan, 132 pages.

(14) United States Department of Agriculture, Forest Service, 1982, Forest Statistics for New York 1980, Forest Experiment Station, Resource Bulletin NE-71.

(15) United States Department of Agriculture, Natural Resources Conservation Service. National Engineering Handbook. (Available in the State Office of the Natural Resources Conservation Service at Syracuse, NY).

(16) United States Department of Agriculture, Natural Resources Conservation Service. National Forestry Manual. (Available in the State Office of the Natural Resources Conservation Service at Syracuse, NY).

(17) United States Department of Agriculture, Natural Resources Conservation Service. 1983. National Soil Survey Handbook, title 430-VI. Soil Survey Staff. (Available in the State Office of the Natural Resources Conservation Service at Syracuse, NY).

(18) United States Department of Agriculture, Natural Resources Conservation Service. 1996. Soil Survey Laboratory Methods Manual. Soil Survey Investigations Report 42.

(19) United States Department of Agriculture, Soil Conservation Service. 1975. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 1st edition. Soil Survey Staff. U.S. Department of Agriculture Handbook 436.

(20) United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

(21) United States Department of Agriculture, Soil Conservation Service. 1987 National Resources Inventory.

(22) United States Department of Agriculture, Soil Conservation Service. 1993. Soil Survey Manual. Soil Survey Staff, U.S. Department of Agriculture Handbook 18.

(23) United States Department of Agriculture, Soil Conservation Service. 1990. Keys to Soil Taxonomy. 4th edition. Soil Survey Staff.

Glossary

ABC soil. A soil having an A, a B, and a C horizon.

AC soil. A soil having only an A and a C horizon. Commonly, such soil formed in recent alluvium or on steep, rocky slopes.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

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.

Area reclaim (in tables). An area difficult to reclaim after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction in which a slope faces.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 40-inch profile or to a limiting layer is expressed as:

Very low	0 to 2.4
Low	2.4 to 3.2
Moderate	3.2 to 5.2
High	more than 5.2

Basal till. Compact glacial till deposited beneath the ice.

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.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Calcareous soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

Catena. A sequence, or “chain,” of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Channery soil A soil that is, by volume, more than 15 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches along the longest axis. A single piece is called a channer.

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 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.

Coarse silty A particle size class having less than 15 percent by weight of fine sand or coarser material (including rock fragments up to 7.5 centimeters in diameter) and less than 18 percent clay.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that is 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.

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.

Compressible (in tables). Excessive decrease in volume of soft soil under load.

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.

Cropping system. Growing crops according to a planned system of rotation and management practices.

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.

Cross-slope farming. Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.

Crown. The upper part of a tree or shrub, including the living branches and their foliage.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Delta. A body of alluvium having a surface that is nearly flat and fan shaped; deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, generally a sea or lake.

Dense layer (in tables). A firm or very firm, massive layer that has a bulk density of more than 1.6 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

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.
Drumlin. A low, smooth, elongated oval hill, mound, or ridge of compact glacial till. The longer axis is parallel to the path of the glacier and commonly has a blunt nose pointing in the direction from which the ice approached.
Duff. A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.
Ecotone. Transition between two or more diverse communities as, for example between forest and grassland.
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.
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.
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.
Esker. A narrow, winding ridge of stratified gravelly and sandy drift deposited by a stream flowing in a tunnel beneath a glacier.
Excess fines (in tables). Excess silt and clay in the soil. The soil does not provide a source of gravel or sand for construction purposes.
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*.
Fill slope. A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.
Fine textured soil. Sandy clay, silty clay, or clay.
Flaggy soil material. Material that is, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.
Flagstone. A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.
Flood plain. A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.
Fluvial. Of or pertaining to rivers; produced by river action, as a fluvial plain.
Foothill. A steeply sloping upland that has relief of as much as 1,000 feet (300 meters) and fringes a mountain range or high-plateau escarpment.
Foot slope. The inclined surface at the base of a hill.
Forb. Any herbaceous plant not a grass or a sedge.
Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.
Forest type. A stand of trees similar in composition and development because of given physical and

biological factors by which it may be differentiated from other stands.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Frost action (in tables). Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Glacial outwash. Gravel, sand, and silt, commonly stratified, deposited by glacial meltwater.

Glacial till. Unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice.

Glaciofluvial deposits. Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and occur as kames, eskers, deltas, and outwash plains.

Glaciolacustrine deposits. Material ranging from fine clay to sand derived from glaciers and deposited in glacial lakes mainly by glacial meltwater. Many deposits are interbedded or laminated.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

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 is 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Ground water. Water filling all the unblocked pores of the material below the water table.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A natural elevation of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well-defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the “Soil Survey Manual.” The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon.

The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock formed by solidification from a molten or partially molten state. Major varieties include plutonic and volcanic rock. Examples are andesite, basalt, and granite.

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration 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.

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.

Kame. An irregular, short ridge or hill of stratified glacial drift.

Knoll. A small, low, rounded hill rising above adjacent landforms.

Lacustrine deposit. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

Landslide. The rapid downhill movement of a mass of soil and loose rock, generally when wet or saturated. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

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.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Low strength. The soil is not strong enough to support loads.

Marl. An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal amounts.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. An area that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

Moraine. An accumulation of earth, stones, and other debris deposited by a glacier. Some types are terminal, lateral, medial, and ground.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Mottles (noted in map unit descriptions) are associated with saturated or near-saturated conditions, as in poorly drained soils. These same mottles are described more precisely in the respective series descriptions as redoximorphic features, in the form of depletions or concentrations. 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).

Mountain. A natural elevation of the land surface, rising more than 1,000 feet above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides. A mountain can occur as a single, isolated mass or in a group forming a chain or range.

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Mudstone. Sedimentary rock formed by induration of silt and clay in approximately equal amounts.

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

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.

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.

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan, fragipan, claypan, plowpan,* and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

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 downward movement of water through the soil.

Percs slowly (in tables). The slow movement of water through the soil adversely affects the specified use.

Permafrost. Layers of soil, or even bedrock, occurring in arctic or subarctic regions, in which a temperature below freezing has existed continuously for a long time.

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:

Very slow	.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	20 to 100 inches

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plastic limit. The moisture content at which a soil changes from semisolid to 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.

Poor filter (in tables). Because of rapid or very rapid permeability, the soil may not adequately filter effluent from a waste disposal system.

Poor outlets (in tables). Refers to areas where surface or subsurface drainage outlets are difficult or expensive to install.

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.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Extremely acid	less than 4.5
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

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.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Rooting depth (in tables). Shallow root zone. The soil is shallow over a layer that greatly restricts roots.

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.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saprolite. Unconsolidated residual material underlying the soil and grading to hard bedrock below.

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.

Seasonal high water table. A zone of saturation at the highest average depth during the wettest season. It is at least six inches thick, persists in the soil for more than a few weeks, and is within six feet of the soil surface. . The depth to the seasonal high water table implies the degree of wetness in the soil.

Seasonal wetness. A saturated or near-saturated soil condition during the season with greatest rainfall or snow-melt. It is at the “depth to saturated zone” or in the fringe above saturation, and is within six feet of the soil surface.

Second bottom. The first terrace above the normal flood plain (or first bottom) of a river.

Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.

Seepage (in tables). The movement of water through the soil. Seepage adversely affects the specified use.

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.

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.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. Sedimentary rock made up of dominantly silt-sized particles.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

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.

Slippage (in tables). Soil mass susceptible to movement downslope when loaded, excavated, or wet.

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.

In this survey, classes for simple slopes are as follows:

Nearly level	3 percent and less
Gently sloping	3 to 8 percent
Strongly sloping	8 to 15 percent
Moderately steep	15 to 25 percent
Steep	25 to 35 percent
Very steep	35 percent and higher

Slope (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Slow intake (in tables). The slow movement of water into the soil.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Small stones (in tables). Rock fragments less than 3 inches (7.6 centimeters) in diameter. Small stones adversely affect the specified use of 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 over periods 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.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

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.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Terrane. A formation or group of formations; the area or surface over which a particular rock or group of rocks is prevalent. An area or region considered in relation to its fitness or suitability for some specific purpose.

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.

Toe slope. The outermost inclined surface at the base of a hill; part of a foot slope.

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.

Unstable fill (in tables). Risk of caving or sloughing on banks of fill material.

Upland. 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.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wetness. A saturated soil condition at the highest average depth during the season with greatest rainfall or snow-melt. It is related to the phrase "depth to saturated zone", persisting in the soil for more than a few weeks, and is within six feet of the soil surface.

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 1961-1990 at Saratoga Springs, New York)

Month	Temperature (Degrees F.)					Precipitation (Inches)					
	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 higher 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
	^oF	^oF	^oF	^oF	^oF	Units	In	In	In		In
January	30.3	8.8	19.6	53	-24	2	2.66	1.38	3.78	6	17.0
February	33.4	10.8	22.1	56	-21	5	2.49	1.08	3.69	5	13.1
March	44.7	22.4	33.5	74	-6	42	3.22	1.92	4.38	6	10.1
April	58.6	33.1	45.9	84	13	210	3.51	2.37	4.55	7	2.5
May	71.4	43.8	57.6	90	26	539	3.98	2.29	5.48	8	0.0
June	79.3	53.0	66.2	93	35	775	3.85	2.09	5.41	7	0.0
July	84.0	58.1	71.0	95	41	948	3.43	1.85	4.82	6	0.0
August	81.2	56.0	68.6	93	38	883	3.92	2.42	5.27	6	0.0
September	73.1	47.7	60.4	89	27	602	3.27	1.67	4.67	5	0.0
October	61.6	37.1	49.4	81	17	300	3.14	1.57	4.50	6	0.0
November	48.0	29.0	38.5	72	8	80	3.70	2.39	4.89	7	3.8
December	34.7	16.3	25.5	58	-15	9	3.37	1.97	4.62	7	15.8
Yearly :											
Average	58.4	34.7	46.5	---	---	---	----	----	----	---	---
Extreme	99	-31	---	95	-26	---	----	----	----	---	---
Total	---	---	---	---	---	439	40.54	33.75	46.09	76	62.3

*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 (Threshold: 40.0 degrees F).

Table 2.—Freeze Dates in Spring and Fall

(Recorded in the period 1961-1979 at Saratoga Springs, New York)

Spring:
Years of missing data 24 deg = 1, 28 deg = 1, 32 deg = 1
Years with no occurrence 24 deg = 0, 28 deg = 0, 32 deg = 0
Data years used 24 deg = 29, 28 deg = 29, 32 deg = 29
Fall:
Years of missing data 24 deg = 2, 28 deg = 1, 32 deg = 1
Years with no occurrence 24 deg = 0, 28 deg = 0, 32 deg = 0
Data years used 24 deg = 28, 28 deg = 29, 32 deg = 29

	Temperature		
Probability	24°F or lower	28°F or lower	32°F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	April 27	May 11	May 29
2 year in 10 later than--	April 23	May 8	May 24
5 year in 10 later than--	April 16	April 30	May 14
First freezing temperature in fall:			
1 yr in 10 earlier than--	Oct. 4	Sept. 19	Sept. 9
2 yr in 10 earlier than--	Oct. 9	Sept. 25	Sept. 14
5 yr in 10 earlier than--	Oct. 20	Oct. 5	Sept. 24

Table 3.—Growing Season

(Recorded in the period 1961-1990 at Saratoga Springs, New York)

Requested years of data: 30
Available years of data: 30

Years with missing data: 24 deg = 2, 28 deg = 1, 32 deg = 1
Years with no occurrence: 24 deg = 0, 28 deg = 0, 32 deg = 0
Data years used: 24 deg = 28, 28 deg = 29, 32 deg = 29

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	166	137	109
8 years in 10	173	144	118
5 years in 10	187	157	133
2 years in 10	201	170	149
1 year in 10	208	177	157

Table 4.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
ALA	Allagash fine sandy loam, nearly level	752	0.1
ALC	Allagash fine sandy loam, strongly sloping	3,791	0.7
ALE	Allagash fine sandy loam, steep	314	*
As	Allis silt loam	2,174	0.4
BCC	Becket sandy loam, strongly sloping, very bouldery	15,857	3.0
BCE	Becket sandy loam, steep, very bouldery	8,917	1.7
BEC	Becket-Tunbridge complex, strongly sloping, very bouldery	4,815	0.9
BEE	Becket-Tunbridge complex, steep, very bouldery	16,542	3.1
BHC	Berkshire loam, strongly sloping, very bouldery	20,102	3.7
BHE	Berkshire loam, steep, very bouldery	13,040	2.4
BLC	Berkshire-Tunbridge complex, strongly sloping, very bouldery	3,966	0.7
BLE	Berkshire-Tunbridge complex, steep, very bouldery	19,503	3.6
BmB	Bernardston silt loam, 3 to 8 percent slopes	1,578	0.3
BmC	Bernardston silt loam, 8 to 15 percent slopes	1,455	0.3
BmD	Bernardston silt loam, 15 to 25 percent slopes	890	0.2
BnB	Bernardston-Manlius-Nassau complex, undulating	3,266	0.6
BnC	Bernardston-Manlius-Nassau complex, rolling	2,946	0.5
BnD	Bernardston-Manlius-Nassau complex, hilly	693	0.1
BOC	Bice loam, strongly sloping, stony	12,195	2.3
BOE	Bice loam, steep, stony	4,557	0.8
BPC	Bice-Woodstock complex, strongly sloping, stony	814	0.2
BPE	Bice-Woodstock complex, steep, stony	1,210	0.2
BtB	Broadalbin silt loam, 3 to 8 percent slopes	9,979	1.9
BtC	Broadalbin silt loam, 8 to 15 percent slopes	1,082	0.2
BtD	Broadalbin silt loam, 15 to 25 percent slopes	398	*
BvB	Broadalbin-Manlius-Nassau, complex, undulating	7,368	1.4
BvC	Broadalbin-Manlius-Nassau, complex, rolling	1,623	0.3
BvD	Broadalbin-Manlius-Nassau, complex, hilly	315	*
BxB	Burdett silt loam, 3 to 8 percent slopes	2,130	0.4
CcB	Charlton loam, 3 to 8 percent slopes	18,340	3.4
CcC	Charlton loam, 8 to 15 percent slopes	9,827	1.8
CcD	Charlton loam, 15 to 25 percent slopes	3,543	0.7
CeB	Chatfield-Hollis complex, undulating, rocky	1,097	0.2
CeC	Chatfield-Hollis complex, rolling, rocky	6,307	1.2
CfD	Chatfield-Hollis complex, hilly, very rocky	1,620	0.3
Cg	Cheektowaga mucky very fine sandy loam	775	0.1
ChB	Chenango silt loam, loamy substratum, udulating	3,700	0.7
ChC	Chenango silt loam, loamy substratum, rolling	862	0.2
ClA	Claverack loamy fine sand, 0 to 3 percent slopes	877	0.2
ClB	Claverack loamy fine sand, 3 to 8 percent slopes	3,157	0.6
COC	Colton gravelly sandy loam, strongly sloping	2,540	0.5
COE	Colton gravelly sandy loam, steep	617	0.1
Cs	Cosad fine sandy loam	1,775	0.3
DeA	Deerfield loamy fine sand, nearly level	5,048	0.9
DeB	Deerfield loamy fine sand, undulating	4,923	0.9
ElB	Elmridge very fine sandy loam, 3 to 8 percent slopes	912	0.2
FaB	Farmington silt loam, 3 to 8 percent slopes, rocky	892	0.2
FcC	Farmington silt loam, 3 to 15 percent slopes, very rocky	1,260	0.2
Fl	Fluvaquents frequently flooded	5,010	0.9
FU	Fluvaquents-Udipsamments complex, flooded	455	*
GaB	Galway loam, 3 to 8 percent slopes	4,014	0.7
GaC	Galway loam, 8 to 15 percent slopes	1,625	0.3
HcA	Hinckley gravelly loamy sand, nearly level	1,097	0.2
HcB	Hinckley gravelly loamy sand, undulating	4,867	0.9
HcC	Hinckley gravelly loamy sand, rolling	3,313	0.6
HcD	Hinckley gravelly loamy sand, hilly	1,461	0.3
HoA	Hoosic gravelly sandy loam, nearly level	648	0.1
HoB	Hoosic gravelly sandy loam, undulating	1,631	0.3
HoC	Hoosic gravelly sandy loam, rolling	811	0.2
HuB	Hudson silt loam, 3 to 8 percent slopes	9,156	1.7

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
HuC	Hudson silt loam, 8 to 15 percent slopes	3,830	0.7
HuD	Hudson silt loam, hilly	4,461	0.8
HuE	Hudson silt loam, 25 to 35 percent slopes	5,565	1.0
In	Ilion silt loam	657	0.1
Lm	Limerick-saco complex	2,698	0.5
LY	Lyme fine sandy loam, very stony	2,347	0.4
Ma	Madalin mucky silty clay loam	3,905	0.7
MnB	Manlius-Nassau complex, undulating, rocky	2,753	0.5
MnC	Manlius-Nassau complex, rolling, rocky	1,867	0.3
MnD	Manlius-Nassau complex, hilly, rocky	536	*
Ms	Massena silt loam	4,320	0.8
MvA	Mosherville silt loam, 0 to 3 percent slopes	4,967	0.9
MvB	Mosherville silt loam, 3 to 8 percent slopes	7,286	1.4
MxB	Mosherville-Hornell complex, undulating	5,374	1.0
NaC	Nassau-rock outcrop complex, rolling	942	0.2
NaD	Nassau-rock outcrop complex, hilly	1,455	0.3
Ne	Newstead loam	434	*
NuB	Nunda silt loam, 3 to 8 percent slopes	2,027	0.4
NuC	Nunda silt loam, 8 to 15 percent slopes	368	*
OaA	Oakville loamy fine sand, nearly level	5,082	0.9
OaB	Oakville loamy fine sand, undulating	29,698	5.5
OaC	Oakville loamy fine sand, rolling	13,927	2.6
OaD	Oakville loamy fine sand, hilly	3,709	0.7
OeE	Oakville and Windsor soils, 25 to 35 percent slopes	3,045	0.6
Pm	Palms muck	3,697	0.7
Pp	Palms muck, ponded	4,643	0.9
PtB	Paxton gravelly sandy loam, 3 to 8 percent slopes	494	*
PtC	Paxton gravelly sandy loam, 8 to 15 percent slopes	386	*
Pu	Pits, quarry	329	*
Pv	Pits, sand and gravel	543	0.1
PwA	Pittstown silt loam, 0 to 3 percent slopes	314	*
PwB	Pittstown silt loam, 3 to 8 percent slopes	620	0.1
Ra	Raynham silt loam	2,590	0.5
RhA	Rhinebeck silt loam, 0 to 3 percent slopes	8,885	1.7
RhB	Rhinebeck silt loam, 3 to 8 percent slopes	7,174	1.3
Sa	Scarboro mucky loamy sand	2,050	0.4
SCB	Schroon sandy loam, gently sloping, stony	1,334	0.2
SeA	Scio silt loam, 0 to 3 percent slopes	3,415	0.6
SeB	Scio silt loam, 3 to 8 percent slopes	3,454	0.6
Sh	Shaker very fine sandy loam	729	0.1
SKB	Skerry fine sandy loam, gently sloping, very stony	12,532	2.3
Sn	Sun silt loam	7,446	1.4
StA	Sutton loam, 0 to 3 percent slopes	2,505	0.5
StB	Sutton loam, 3 to 8 percent slopes	6,429	1.2
Te	Teel silt loam	2,246	0.4
Tg	Tioga fine sandy loam	685	0.1
TNC	Tunbridge-Lyman complex, strongly sloping, very rocky	1,424	0.3
TNE	Tunbridge-Lyman complex, steep, very rocky	12,557	2.3
TNF	Tunbridge-Lyman complex, very steep, very rocky	1,278	0.2
Ud	Udipsamments, dredged	288	*
Ue	Udorthents, smoothed	1,167	0.2
UnB	Unadilla very fine sandy loam, 3 to 8 percent slopes	1,722	0.3
UnC	Unadilla very fine sandy loam, 8 to 15 percent slopes	392	*
W	Water	22,379	4.2
Wa	Wareham loamy sand	8,134	1.5
WnA	Windsor loamy sand, nearly level	10,698	2.0
WnB	Windsor loamy sand, undulating	18,875	3.5
WnC	Windsor loamy sand, rolling	7,230	1.3
WnD	Windsor loamy sand, hilly	938	0.2
WO	Wonsqueak muck, ponded	1,873	0.3
WrB	Woodbridge loam, 3 to 8 percent slopes	160	*
	Total	537,300	100.0

* Less than 0.1 percent.

Table 5.--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	Alfalfa hay	Corn	Corn silage	Grass-legume hay	Pasture
		Tons	Bu	Tons	Tons	AUM
ALA:						
Allagash----------------	1	---	---	18.00	4.00	7.50
ALC:						
Allagash----------------	3e	---	---	16.00	3.50	6.50
ALE:						
Allagash----------------	6e	---	---	---	---	---
As:						
Allis-------------------	4w	---	---	10.00	---	4.00
BCC:						
Becket, very bouldery---	6s	---	---	---	---	---
BCE:						
Becket, very bouldery---	7s	---	---	---	---	---
BEC:						
Becket, very bouldery---	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---
BEE:						
Becket, very bouldery---	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
BHC:						
Berkshire, very bouldery	6s	---	---	---	---	---
BHE:						
Berkshire, very bouldery	7s	---	---	---	---	---
BLC:						
Berkshire, very bouldery	6s	---	---	---	---	---
Tunbridge, very bouldery	6s	---	---	---	---	---
BLE:						
Berkshire, very bouldery	7s	---	---	---	---	---
Tunbridge, very bouldery	7s	---	---	---	---	---
BmB:						
Bernardston-------------	2e	4.50	110.00	18.00	4.00	8.50
BmC:						
Bernardston-------------	3e	4.00	---	17.00	3.50	7.50
BmD:						
Bernardston-------------	4e	3.50	---	---	3.00	6.50
BnB:						
Bernardston-------------	2e	4.00	110.00	18.00	3.90	7.50
Manlius-----------------	2e	---	---	---	---	4.50
Nassau------------------	3s	---	---	---	---	4.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass-legume hay	Pasture
		Tons	Bu	Tons	Tons	AUM
BnC:						
Bernardston	3e	3.50	---	17.00	3.40	7.50
Manlius	3e	---	---	---	---	4.50
Nassau	4e	---	---	---	---	4.00
BnD:						
Bernardston	4e	3.50	---	---	3.00	6.00
Manlius	4e	---	---	---	---	3.50
Nassau	6e	---	---	---	---	3.00
BOC:						
Bice, stony	3e	4.00	---	18.00	3.50	6.50
BOE:						
Bice, stony	6e	---	---	---	---	4.50
BPC:						
Bice, stony	4e	---	---	---	---	---
Woodstock, stony	4e	---	---	---	---	---
BPE:						
Bice, stony	7e	---	---	---	---	---
Woodstock, stony	7e	---	---	---	---	---
BtB:						
Broadalbin	2e	4.50	110.00	18.00	4.00	8.50
BtC:						
Broadalbin	3e	4.00	100.00	16.00	4.00	7.50
BtD:						
Broadalbin	4e	3.50	---	---	3.50	6.50
BvB:						
Broadalbin	2e	4.50	95.00	16.00	4.20	7.60
Manlius	2e	---	---	---	---	4.50
Nassau	3s	---	---	---	---	4.00
BvC:						
Broadalbin	3e	4.00	---	15.00	3.60	6.80
Manlius	3e	---	---	---	---	4.50
Nassau	4e	---	---	---	---	4.00
BvD:						
Broadalbin	4e	3.50	---	---	3.00	5.60
Manlius	4e	---	---	---	---	3.50
Nassau	6e	---	---	---	---	3.00
BxB:						
Burdett	3w	---	65.00	15.00	3.00	6.50

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass-legume hay	Pasture
		Tons	Bu	Tons	Tons	AUM
CcB:						
Charlton	2e	4.50	100.00	20.00	4.50	---
CcC:						
Charlton	3e	4.00	---	18.00	4.00	---
CcD:						
Charlton	4e	4.50	---	---	3.50	6.00
CeB:						
Chatfield, undulating	3s	---	---	---	3.50	6.00
Hollis, undulating	3s	---	---	---	---	4.00
CeC:						
Chatfield, rolling	4e	---	---	---	3.50	5.00
Hollis, rolling	4e	---	---	---	---	3.00
CfD:						
Chatfield, hilly	6e	---	---	---	---	---
Hollis, hilly	6e	---	---	---	---	---
Cg:						
Cheektowaga	5w	---	---	---	---	---
ChB:						
Chenango, loamy substratum	2e	5.50	110.00	---	4.00	8.00
ChC:						
Chenango, loamy subtratum	3e	4.50	90.00	---	3.50	7.50
ClA:						
Claverack	2w	3.50	100.00	20.00	5.00	7.50
ClB:						
Claverack	2w	4.00	100.00	20.00	5.00	7.50
COC:						
Colton	4e	2.50	---	---	2.00	5.00
COE:						
Colton	7e	---	---	---	---	---
Cs:						
Cosad	3w	---	---	14.00	3.00	4.50
DeA:						
Deerfield	3w	3.50	---	16.00	3.00	4.50
DeB:						
Deerfield, undulating	3w	3.50	---	16.00	3.00	4.50
ElB:						
Elmridge	2e	---	---	20.00	4.00	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass-legume hay	Pasture
		Tons	Bu	Tons	Tons	AUM
FaB:						
Farmington, rocky	3s	---	---	---	2.50	5.50
FcC:						
Farmington, very rocky	6s	---	---	---	---	5.00
Fl:						
Fluvaquents, frequently flooded	5w	---	---	---	---	---
FU:						
Fluvaquents, flooded	5w	---	---	---	---	---
Udipsamments	7s	---	---	---	---	---
GaB:						
Galway	2e	4.00	90.00	16.00	4.00	8.50
GaC:						
Galway	3e	3.50	80.00	14.00	3.50	7.50
HcA:						
Hinckley	3s	2.50	---	12.00	2.00	---
HcB:						
Hinckley, undulating	3s	2.50	---	12.00	2.00	---
HcC:						
Hinckley, rolling	4s	---	---	---	---	---
HcD:						
Hinckley, hilly	6s	---	---	---	---	---
HoA:						
Hoosic	3s	4.50	---	16.00	3.50	7.50
HoB:						
Hoosic, undulating	3s	4.50	---	16.00	3.50	7.50
HoC:						
Hoosic, rolling	3e	3.50	---	16.00	3.50	7.50
HuB:						
Hudson	2e	4.00	90.00	16.00	4.00	6.50
HuC:						
Hudson	3e	4.00	90.00	16.00	4.00	6.50
HuD:						
Hudson, hilly	4e	4.00	---	14.00	---	---
HuE:						
Hudson	6e	---	---	---	---	---
In:						
Ilion	4w	---	---	---	2.50	5.50
Lm:						
Limerick	5w	---	---	---	---	---
Saco	5w	---	---	---	---	---
LY:						
Lyme, very stony	7s	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass-legume hay	Pasture
		Tons	Bu	Tons	Tons	AUM
Ma:						
Madalin	5w	---	---	---	2.00	4.50
MnB:						
Manlius, undulating	3e	---	---	---	---	4.50
Nassau	3s	---	---	---	---	4.00
MnC:						
Manlius, rolling	4e	---	---	---	---	4.50
Nassau	4e	---	---	---	---	4.00
MnD:						
Manlius, hilly	6e	---	---	---	---	3.50
Nassau	6e	---	---	---	---	3.00
Ms:						
Massena	3w	---	---	16.00	3.00	6.00
MvA:						
Mosherville	3w	---	80.00	14.00	3.00	5.50
MvB:						
Mosherville	3w	---	80.00	14.00	3.00	5.50
MxB:						
Mosherville	3w	---	80.00	14.00	3.00	5.50
Hornell, undulating	3w	---	80.00	14.00	3.00	5.50
NaC:						
Nassau, rolling	4e	---	---	---	3.00	5.00
Rock Outcrop	6s	---	---	---	---	---
NaD:						
Nassau, hilly	6e	---	---	---	---	4.00
Rock Outcrop	6s	---	---	---	---	---
Ne:						
Newstead	3w	---	---	10.00	2.50	4.00
NuB:						
Nunda	2e	5.50	90.00	18.00	3.00	6.00
NuC:						
Nunda	3e	5.00	85.00	17.00	2.50	5.00
OaA:						
Oakville	2w	4.00	130.00	22.00	4.50	---
OaB:						
Oakville, undulating	3s	5.00	130.00	22.00	4.50	---
OaC:						
Oakville, rolling	3e	4.00	110.00	19.00	3.50	---
OaD:						
Oakville, hilly	4e	3.50	---	---	3.00	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass-legume hay	Pasture
		Tons	Bu	Tons	Tons	AUM
OeE:						
Oakville	7s	---	---	---	---	---
Windsor	7s	---	---	---	---	---
Pm:						
Palms	5w	---	---	---	---	---
Pp:						
Palms, ponded	8	---	---	---	---	---
PtB:						
Paxton	2e	4.00	110.00	20.00	4.00	---
PtC:						
Paxton	3e	4.00	---	22.00	4.00	---
Pu:						
Pits, Quarry	---	---	---	---	---	---
Pv:						
Pits, Sand And Gravel	---	---	---	---	---	---
PwA:						
Pittstown	2w	4.00	---	18.00	3.50	---
PwB:						
Pittstown	2e	4.00	---	18.00	3.50	---
Ra:						
Raynham	3w	---	---	---	---	---
RhA:						
Rhinebeck	3w	---	80.00	14.00	3.00	5.50
RhB:						
Rhinebeck	3w	---	80.00	14.00	3.00	5.50
Sa:						
Scarboro	5w	---	---	---	---	---
SCB:						
Schroon, stony	2w	---	---	---	3.00	5.50
SeA:						
Scio	2w	3.50	100.00	20.00	3.50	6.50
SeB:						
Scio	2e	3.50	100.00	20.00	3.50	6.50
Sh:						
Shaker	4w	---	---	---	2.50	---
SKB:						
Skerry, very stony	6s	---	---	---	---	---
Sn:						
Sun	5w	---	---	---	---	---
StA:						
Sutton	2w	---	---	14.00	4.00	6.50
StB:						
Sutton	2e	---	---	14.00	4.00	6.50

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Alfalfa hay	Corn	Corn silage	Grass-legume hay	Pasture
		Tons	Bu	Tons	Tons	AUM
Te:						
Teel	2w	---	145.00	25.00	4.50	6.50
Tg:						
Tioga	1	5.50	145.00	25.00	4.00	8.50
TNC:						
Tunbridge, very bouldery	6s	---	---	---	---	---
Lyman, very bouldery	6s	---	---	---	---	---
TNE:						
Tunbridge, very bouldery	7s	---	---	---	---	---
Lyman, very bouldery	7s	---	---	---	---	---
TNF:						
Tunbridge, very bouldery	7s	---	---	---	---	---
Lyman, very bouldery	7s	---	---	---	---	---
Ud:						
Udipsamments, dredged	7s	---	---	---	---	---
Ue:						
Udorthents, smoothed	6s	---	---	---	---	---
UnB:						
Unadilla	2e	5.00	110.00	19.00	4.00	6.50
UnC:						
Unadilla	3e	4.50	100.00	17.00	3.50	6.50
W:						
Water	---	---	---	---	---	---
Wa:						
Wareham	4w	---	---	---	2.00	---
WnA:						
Windsor	3s	3.00	100.00	16.00	2.50	---
WnB:						
Windsor, undulating	3s	3.00	100.00	16.00	2.50	---
WnC:						
Windsor, rolling	4e	3.00	---	14.00	2.50	---
WnD:						
Windsor, hilly	6e	2.50	---	---	2.00	---
WO:						
Wonsqueak, ponded	7w	---	---	---	---	---
WrB:						
Woodbridge	2e	---	---	14.00	3.00	5.50

Table 6.--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
BmB	Bernardston silt loam, 3 to 8 percent slopes
BtB	Broadalbin silt loam, 3 to 8 percent slopes
BxB	Burdett silt loam, 3 to 8 percent slopes (Prime farmland if drained)
CcB	Charlton loam, 3 to 8 percent slopes
ChB	Chenango silt loam, loamy substratum, udulating
ClA	Claverack loamy fine sand, 0 to 3 percent slopes
ClB	Claverack loamy fine sand, 3 to 8 percent slopes
Cs	Cosad fine sandy loam (Prime farmland if drained)
ElB	Elmridge very fine sandy loam, 3 to 8 percent slopes
GaB	Galway loam, 3 to 8 percent slopes
HuB	Hudson silt loam, 3 to 8 percent slopes
Ms	Massena silt loam (Prime farmland if drained)
Ne	Newstead loam (Prime farmland if drained)
NuB	Nunda silt loam, 3 to 8 percent slopes
OaA	Oakville loamy fine sand, nearly level
PtB	Paxton gravelly sandy loam, 3 to 8 percent slopes
PwA	Pittstown silt loam, 0 to 3 percent slopes
PwB	Pittstown silt loam, 3 to 8 percent slopes
Ra	Raynham silt loam (Prime farmland if drained)
SeA	Scio silt loam, 0 to 3 percent slopes
SeB	Scio silt loam, 3 to 8 percent slopes
Sh	Shaker very fine sandy loam (Prime farmland if drained)
StA	Sutton loam, 0 to 3 percent slopes
StB	Sutton loam, 3 to 8 percent slopes
Te	Teel silt loam
Tg	Tioga fine sandy loam
UnB	Unadilla very fine sandy loam, 3 to 8 percent slopes
WrB	Woodbridge loam, 3 to 8 percent slopes

Table 7.--Forest Productivity

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
ALA:				
Allagash	eastern white pine	85	143	European larch, Scotch pine, eastern white pine, red pine, white spruce
	red pine	71	129	
	white spruce	52	114	
	balsam fir	---	0	
	eastern hemlock	---	0	
	American beech	---	0	
	paper birch	---	0	
	red maple	---	0	
	red spruce	---	0	
ALC:				
Allagash	eastern white pine	85	143	European larch, Scotch pine, eastern white pine, red pine, white spruce
	red pine	71	129	
	white spruce	52	114	
	balsam fir	---	0	
	eastern hemlock	---	0	
	American beech	---	0	
	paper birch	---	0	
	red maple	---	0	
	red spruce	---	0	
ALE:				
Allagash	eastern white pine	85	143	European larch, Scotch pine, eastern white pine, red pine, white spruce
	red pine	71	129	
	white spruce	52	114	
	balsam fir	---	0	
	eastern hemlock	---	0	
	American beech	---	0	
	paper birch	---	0	
	red maple	---	0	
	red spruce	---	0	
As:				
Allis	red maple	50	29	eastern arborvitae, white spruce
	eastern white pine	55	86	
BCC:				
Becket, very bouldery	eastern white pine	69	129	eastern white pine, red pine, white spruce
	balsam fir	55	114	
	white spruce	55	129	
	sugar maple	60	43	
	paper birch	71	86	
BCE:				
Becket, very bouldery	eastern white pine	69	129	eastern white pine, red pine, white spruce
	balsam fir	55	114	
	white spruce	55	129	
	sugar maple	60	43	
	paper birch	71	86	
BEC:				
Becket, very bouldery	eastern white pine	69	129	eastern white pine, red pine, white spruce
	balsam fir	55	114	
	white spruce	55	129	
	sugar maple	60	43	
	paper birch	71	86	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
BEC:				
Tunbridge, very bouldery	eastern white pine	50	86	eastern white pine, red spruce, white spruce
	sugar maple	60	43	
	northern red oak	---	0	
BEE:				
Becket, very bouldery	eastern white pine	69	129	eastern white pine, red pine, white spruce
	balsam fir	55	114	
	white spruce	55	129	
	sugar maple	60	43	
	paper birch	71	86	
Tunbridge, very bouldery	eastern white pine	50	86	eastern white pine, red spruce, white spruce
	sugar maple	60	43	
	northern red oak	---	0	
BHC:				
Berkshire, very bouldery	eastern white pine	72	129	balsam fir, eastern white pine, red pine, white spruce
	sugar maple	52	29	
	red spruce	50	114	
	white ash	62	43	
	yellow birch	55	29	
	paper birch	60	57	
	balsam fir	60	114	
	white spruce	55	129	
	red pine	65	114	
BHE:				
Berkshire, very bouldery	eastern white pine	72	129	balsam fir, eastern white pine, red pine, white spruce
	sugar maple	52	29	
	red spruce	50	114	
	white ash	62	43	
	yellow birch	55	29	
	paper birch	60	57	
	balsam fir	60	114	
	white spruce	55	129	
	red pine	65	114	
BLC:				
Berkshire, very bouldery	eastern white pine	72	129	balsam fir, eastern white pine, red pine, white spruce
	sugar maple	52	29	
	red spruce	50	114	
	white ash	62	43	
	yellow birch	55	29	
	paper birch	60	57	
	balsam fir	60	114	
	white spruce	55	129	
	red pine	65	114	
Tunbridge, very bouldery	eastern white pine	50	86	eastern white pine, red spruce, white spruce
	sugar maple	60	43	
	northern red oak	---	0	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
BLE:				
Berkshire, very bouldery	eastern white pine	72	129	balsam fir, eastern white pine, red pine, white spruce
	sugar maple	52	29	
	red spruce	50	114	
	white ash	62	43	
	yellow birch	55	29	
	paper birch	60	57	
	balsam fir	60	114	
	white spruce	55	129	
	red pine	65	114	
Tunbridge, very bouldery	eastern white pine	50	86	eastern white pine, red spruce, white spruce
	sugar maple	60	43	
	northern red oak	---	0	
BmB:				
Bernardston	sugar maple	65	43	Douglas fir, Fraser's fir, eastern hemlock, eastern white pine, white spruce
	northern red oak	55	43	
	eastern white pine	65	114	
	eastern hemlock	65	0	
BmC:				
Bernardston	sugar maple	65	43	Douglas fir, Fraser's fir, eastern hemlock, eastern white pine, white spruce
	northern red oak	55	43	
	eastern white pine	65	114	
	eastern hemlock	65	0	
BmD:				
Bernardston	sugar maple	65	43	Douglas fir, Fraser's fir, eastern hemlock, eastern white pine, white spruce
	northern red oak	55	43	
	eastern white pine	65	114	
	eastern hemlock	65	0	
BnB:				
Bernardston	sugar maple	65	43	Douglas fir, Fraser's fir, eastern hemlock, eastern white pine, white spruce
	northern red oak	55	43	
	eastern white pine	65	114	
	eastern hemlock	65	0	
Manlius	sugar maple	70	43	European larch, Norway spruce, black cherry, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
Nassau	sugar maple	50	29	European larch, eastern white pine, red pine
	northern red oak	50	29	
	eastern white pine	55	86	
BnC:				
Bernardston	sugar maple	65	43	Douglas fir, Fraser's fir, eastern hemlock, eastern white pine, white spruce
	northern red oak	55	43	
	eastern white pine	65	114	
	eastern hemlock	65	0	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
BnC:				
Manlius	sugar maple	70	43	European larch,
	northern red oak	70	57	Norway spruce,
	black cherry	70	43	black cherry,
				eastern white
				pine, red pine
Nassau	sugar maple	50	29	European larch,
	northern red oak	50	29	eastern white
	eastern white pine	55	86	pine, red pine
BnD:				
Bernardston	sugar maple	65	43	Douglas fir,
	northern red oak	55	43	Fraser's fir,
	eastern white pine	65	114	eastern hemlock,
	eastern hemlock	65	0	eastern white
				pine, white spruce
Manlius	sugar maple	70	43	European larch,
	northern red oak	70	57	Norway spruce,
	black cherry	70	43	black cherry,
				eastern white
				pine, red pine
Nassau	sugar maple	50	29	European larch,
	northern red oak	50	29	eastern white
	eastern white pine	55	86	pine, red pine
BOC:				
Bice, stony	eastern white pine	65	114	European larch,
	northern red oak	65	43	eastern hemlock,
	red pine	70	129	eastern white
	red spruce	50	114	pine, red pine,
	red maple	55	29	white spruce
	shagbark hickory	---	0	
	sugar maple	55	29	
BOE:				
Bice, stony	eastern white pine	65	114	European larch,
	northern red oak	65	43	eastern hemlock,
	red pine	70	129	eastern white
	red spruce	50	114	pine, red pine,
	red maple	55	29	white spruce
	shagbark hickory	---	0	
	sugar maple	55	29	
BPC:				
Bice, stony	eastern white pine	65	114	European larch,
	northern red oak	65	43	eastern hemlock,
	red pine	70	129	eastern white
	red spruce	50	114	pine, red pine,
	red maple	55	29	white spruce
	shagbark hickory	---	0	
	sugar maple	55	29	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
BPC:				
Woodstock, stony	eastern white pine	60	100	balsam fir, eastern white pine, white spruce
	sugar maple	53	29	
	red pine	60	100	
	white spruce	58	129	
	balsam fir	58	114	
	red spruce	41	86	
	yellow birch	53	29	
	paper birch	58	57	
	red maple	60	43	
BPE:				
Bice, stony	eastern white pine	65	114	European larch, eastern hemlock, eastern white pine, red pine, white spruce
	northern red oak	65	43	
	red pine	70	129	
	red spruce	50	114	
	red maple	55	29	
	shagbark hickory	---	0	
	sugar maple	55	29	
Woodstock, stony	eastern white pine	60	100	balsam fir, eastern white pine, white spruce
	sugar maple	53	29	
	red pine	60	100	
	white spruce	58	129	
	balsam fir	58	114	
	red spruce	41	86	
	yellow birch	53	29	
	paper birch	58	57	
	red maple	60	43	
BtB:				
Broadalbin	sugar maple	65	43	European larch, Norway spruce, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
	eastern white pine	70	129	
	American beech	---	0	
	yellow birch	65	43	
BtC:				
Broadalbin	sugar maple	65	43	European larch, Norway spruce, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
	eastern white pine	70	129	
	American beech	---	0	
	yellow birch	65	43	
BtD:				
Broadalbin	sugar maple	65	43	European larch, Norway spruce, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
	eastern white pine	70	129	
	American beech	---	0	
	yellow birch	65	43	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
BvB:				
Broadalbin	sugar maple	65	43	European larch, Norway spruce, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
	eastern white pine	70	129	
	American beech	---	0	
	yellow birch	65	43	
Manlius	sugar maple	70	43	European larch, Norway spruce, black cherry, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
Nassau	sugar maple	50	29	European larch, eastern white pine, red pine
	northern red oak	50	29	
	eastern white pine	55	86	
BvC:				
Broadalbin	sugar maple	65	43	European larch, Norway spruce, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
	eastern white pine	70	129	
	American beech	---	0	
	yellow birch	65	43	
Manlius	sugar maple	70	43	European larch, Norway spruce, black cherry, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
Nassau	sugar maple	50	29	European larch, eastern white pine, red pine
	northern red oak	50	29	
	eastern white pine	55	86	
BvD:				
Broadalbin	sugar maple	65	43	European larch, Norway spruce, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
	eastern white pine	70	129	
	American beech	---	0	
	yellow birch	65	43	
Manlius	sugar maple	70	43	European larch, Norway spruce, black cherry, eastern white pine, red pine
	northern red oak	70	57	
	black cherry	70	43	
Nassau	sugar maple	50	29	European larch, eastern white pine, red pine
	northern red oak	50	29	
	eastern white pine	55	86	
BxB:				
Burdett	northern red oak	70	57	European larch, Norway spruce, eastern white pine, white spruce
	sugar maple	60	43	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
CcB:				
Charlton	northern red oak	65	43	European larch,
	eastern white pine	65	114	eastern hemlock,
	red pine	70	129	eastern white
	red spruce	50	114	pine, red pine,
	sugar maple	55	29	white spruce
	shagbark hickory	---	0	
	red maple	55	29	
CcC:				
Charlton	northern red oak	65	43	European larch,
	eastern white pine	65	114	eastern hemlock,
	red pine	70	129	eastern white
	red spruce	50	114	pine, red pine,
	sugar maple	55	29	white spruce
	shagbark hickory	---	0	
	red maple	55	29	
CcD:				
Charlton	northern red oak	65	43	European larch,
	eastern white pine	65	114	eastern hemlock,
	red pine	70	129	eastern white
	red spruce	50	114	pine, red pine,
	sugar maple	55	29	white spruce
	shagbark hickory	---	0	
	red maple	55	29	
CeB:				
Chatfield, undulating	sugar maple	65	43	European larch,
	northern red oak	70	57	Norway spruce,
	white ash	75	43	eastern white
				pine, red pine
Hollis, undulating	sugar maple	56	29	eastern white pine
	northern red oak	47	29	
	eastern white pine	55	86	
CeC:				
Chatfield, rolling	sugar maple	65	43	European larch,
	northern red oak	70	57	Norway spruce,
	white ash	75	43	eastern white
				pine, red pine
Hollis, rolling	sugar maple	56	29	eastern white pine
	northern red oak	47	29	
	eastern white pine	55	86	
CfD:				
Chatfield, hilly	sugar maple	65	43	European larch,
	northern red oak	70	57	Norway spruce,
	white ash	75	43	eastern white
				pine, red pine
Hollis, hilly	sugar maple	56	29	eastern white pine
	northern red oak	47	29	
	eastern white pine	55	86	
Cg:				
Cheektowaga	eastern arborvitae	50	72	eastern arborvitae
	red maple	50	29	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
ChB:				
Chenango, loamy substratum	northern red oak	80	57	European larch, eastern white pine, red pine
	sugar maple	70	43	
ChC:				
Chenango, loamy subtratum	northern red oak	80	57	European larch, eastern white pine, red pine
	sugar maple	70	43	
ClA:				
Claverack	sugar maple	65	43	Norway spruce, eastern white pine, white spruce
	northern red oak	70	57	
	eastern white pine	75	143	
ClB:				
Claverack	sugar maple	65	43	Norway spruce, eastern white pine, white spruce
	northern red oak	70	57	
	eastern white pine	75	143	
COC:				
Colton	sugar maple	61	43	European larch, eastern white pine, red pine
	eastern white pine	62	114	
	red spruce	39	86	
	red pine	52	86	
	white spruce	52	114	
COE:				
Colton	sugar maple	61	43	European larch, eastern white pine, red pine
	eastern white pine	62	114	
	red spruce	39	86	
	red pine	52	86	
	white spruce	52	114	
Cs:				
Cosad	red maple	70	43	Norway spruce, eastern arborvitae, eastern white pine, white spruce
	eastern white pine	70	129	
DeA:				
Deerfield	eastern white pine	65	114	Douglas fir, European larch, eastern white pine, red pine, white spruce
	northern red oak	55	43	
DeB:				
Deerfield, undulating	eastern white pine	65	114	Douglas fir, European larch, eastern white pine, red pine, white spruce
	northern red oak	55	43	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
	Potential productivity			
			cu ft/ac	
ElB:				
Elmridge	northern red oak	70	57	European larch, eastern white pine, white spruce
	eastern white pine	75	143	
	shagbark hickory	60	43	
	red maple	---	0	
FaB:				
Farmington, rocky	northern red oak	50	29	European larch, eastern white pine, red pine
	sugar maple	50	29	
	eastern white pine	55	86	
	American basswood	55	29	
	white ash	55	29	
	eastern hemlock	50	0	
FcC:				
Farmington, very rocky	northern red oak	50	29	European larch, eastern white pine, red pine
	sugar maple	50	29	
	eastern white pine	55	86	
	American basswood	55	29	
	white ash	55	29	
	eastern hemlock	50	0	
Fl:				
Fluvaquents, frequently flooded	---	---	---	---
FU:				
Fluvaquents, flooded	---	---	---	---
Udipsamments	---	---	---	---
GaB:				
Galway	northern red oak	70	57	European larch, Norway spruce, eastern white pine, red pine
	sugar maple	65	43	
	white ash	75	43	
GaC:				
Galway	northern red oak	70	57	European larch, Norway spruce, eastern white pine, red pine
	sugar maple	65	43	
	white ash	75	43	
HcA:				
Hinckley	eastern white pine	60	100	European larch, eastern white pine
	northern red oak	49	29	
	red pine	58	100	
	sugar maple	57	29	
HcB:				
Hinckley, undulating	eastern white pine	60	100	European larch, eastern white pine
	northern red oak	49	29	
	red pine	58	100	
	sugar maple	57	29	
HcC:				
Hinckley, rolling	eastern white pine	60	100	European larch, eastern white pine
	northern red oak	49	29	
	red pine	58	100	
	sugar maple	57	29	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
HcD:				
Hinckley, hilly	eastern white pine	60	100	European larch, eastern white pine
	northern red oak	49	29	
	red pine	58	100	
	sugar maple	57	29	
HoA:				
Hoosic	northern red oak	75	57	European larch, eastern white pine, red pine
	sugar maple	65	43	
HoB:				
Hoosic, undulating	northern red oak	75	57	European larch, eastern white pine, red pine
	sugar maple	65	43	
HoC:				
Hoosic, rolling	northern red oak	75	57	European larch, eastern white pine, red pine
	sugar maple	65	43	
HuB:				
Hudson	northern red oak	80	57	black cherry, black walnut, eastern white pine, tuliptree
	sugar maple	70	43	
	eastern white pine	85	143	
	white ash	85	57	
HuC:				
Hudson	northern red oak	80	57	black cherry, black walnut, eastern white pine, tuliptree
	sugar maple	70	43	
	eastern white pine	85	143	
	white ash	85	57	
HuD:				
Hudson, hilly	northern red oak	80	57	black cherry, black walnut, eastern white pine, tuliptree
	sugar maple	70	43	
	eastern white pine	85	143	
	white ash	85	57	
HuE:				
Hudson	northern red oak	80	57	black cherry, black walnut, eastern white pine, tuliptree
	sugar maple	70	43	
	eastern white pine	85	143	
	white ash	85	57	
In:				
Ilion	eastern white pine	75	143	eastern white pine, white spruce
	swamp white oak	65	43	
	red maple	75	43	
Lm:				
Limerick	red maple	40	29	eastern arborvitae, eastern white pine, white spruce
	eastern white pine	65	114	
Saco	red maple	50	29	---
	eastern white pine	50	86	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
LY:				
Lyme, very stony	eastern white pine	65	114	eastern white pine, white spruce
	red spruce	50	114	
	red maple	65	43	
	balsam fir	50	114	
Ma:				
Madalin	red maple	50	29	eastern arborvitae, eastern white pine, white spruce
	white ash	50	29	
MnB:				
Manlius, undulating	northern red oak	70	57	European larch, Norway spruce, black cherry, eastern white pine, red pine
	black cherry	70	43	
	sugar maple	70	43	
Nassau	northern red oak	50	29	European larch, eastern white pine, red pine
	sugar maple	50	29	
	eastern white pine	55	86	
MnC:				
Manlius, rolling	northern red oak	70	57	European larch, Norway spruce, black cherry, eastern white pine, red pine
	black cherry	70	43	
	sugar maple	70	43	
Nassau	northern red oak	50	29	European larch, eastern white pine, red pine
	sugar maple	50	29	
	eastern white pine	55	86	
MnD:				
Manlius, hilly	northern red oak	70	57	European larch, Norway spruce, black cherry, eastern white pine, red pine
	black cherry	70	43	
	sugar maple	70	43	
Nassau	northern red oak	50	29	European larch, eastern white pine, red pine
	sugar maple	50	29	
	eastern white pine	55	86	
Ms:				
Massena	northern red oak	70	57	eastern arborvitae, eastern white pine, white spruce
	eastern white pine	75	143	
	red maple	75	43	
MvA:				
Mosherville	sugar maple	65	43	European larch, Norway spruce, eastern white pine, white spruce
	northern red oak	70	57	
	white ash	75	43	
MvB:				
Mosherville	sugar maple	65	43	European larch, Norway spruce, eastern white pine, white spruce
	northern red oak	70	57	
	white ash	75	43	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
MxB:				
Mosherville	sugar maple	65	43	European larch, Norway spruce, eastern white pine, white spruce
	northern red oak	70	57	
	white ash	75	43	
Hornell, undulating	sugar maple	60	43	European larch, Norway spruce, eastern white pine, white spruce
	white ash	70	43	
	northern red oak	70	57	
NaC:				
Nassau, rolling	sugar maple	50	29	European larch, eastern white pine, red pine
	northern red oak	50	29	
	eastern white pine	55	86	
Rock Outcrop	---	---	---	---
NaD:				
Nassau, hilly	sugar maple	50	29	European larch, eastern white pine, red pine
	northern red oak	50	29	
	eastern white pine	55	86	
Rock Outcrop	---	---	---	---
Ne:				
Newstead	eastern white pine	65	114	eastern white pine, white spruce
	red maple	65	43	
	white ash	65	43	
	eastern hemlock	55	0	
	eastern redcedar	---	0	
NuB:				
Nunda	northern red oak	80	57	European larch, Norway spruce, eastern white pine, white spruce
	sugar maple	70	43	
NuC:				
Nunda	northern red oak	80	57	European larch, Norway spruce, eastern white pine, white spruce
	sugar maple	70	43	
OaA:				
Oakville	white oak	70	57	eastern white pine, jack pine, red pine
	red pine	78	143	
	eastern white pine	85	200	
	jack pine	68	100	
OaB:				
Oakville, undulating	white oak	70	57	eastern white pine, jack pine, red pine
	red pine	78	143	
	eastern white pine	85	200	
	jack pine	68	100	
OaC:				
Oakville, rolling	white oak	70	57	eastern white pine, jack pine, red pine
	red pine	78	143	
	eastern white pine	85	200	
	jack pine	68	100	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
OaC:				
Oakville, rolling	white oak	70	57	eastern white pine, jack pine, red pine
	red pine	78	143	
	eastern white pine	85	200	
	jack pine	68	100	
OaD:				
Oakville, hilly	white oak	70	57	eastern white pine, jack pine, red pine
	red pine	78	143	
	eastern white pine	85	200	
	jack pine	68	100	
OeE:				
Oakville	white oak	70	57	eastern white pine, jack pine, red pine
	red pine	78	143	
	eastern white pine	85	200	
	jack pine	68	100	
Windsor	northern red oak	52	29	Norway spruce, eastern white pine, red pine
	eastern white pine	57	100	
	red pine	61	100	
	sugar maple	55	29	
Pm:				
Palms	red maple	55	29	eastern arborvitae, tamarack
	silver maple	80	29	
	white ash	---	0	
	quaking aspen	---	0	
	eastern arborvitae	---	0	
	tamarack	---	0	
	black ash	---	0	
Pp:				
Palms, ponded	red maple	55	14	eastern arborvitae, tamarack
	silver maple	80	14	
	white ash	---	0	
	quaking aspen	---	0	
	eastern arborvitae	---	0	
	tamarack	---	0	
	black ash	---	0	
PtB:				
Paxton	northern red oak	65	43	European larch, Norway spruce, eastern white pine, red pine
	red pine	67	114	
	eastern white pine	66	114	
	sugar maple	75	43	
PtC:				
Paxton	northern red oak	65	43	European larch, Norway spruce, eastern white pine, red pine
	red pine	67	114	
	eastern white pine	66	114	
	sugar maple	75	43	
Pu:				
Pits, Quarry	---	---	---	---

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Pv:				
Pits, Sand And Gravel	---	---	---	---
PwA:				
Pittstown	northern red oak	72	57	Scotch pine, balsam fir, eastern white pine, white spruce
	sugar maple	66	43	
	eastern white pine	80	143	
	red spruce	50	114	
PwB:				
Pittstown	northern red oak	72	57	Scotch pine, balsam fir, eastern white pine, white spruce
	sugar maple	66	43	
	eastern white pine	80	143	
	red spruce	50	114	
Ra:				
Raynham	red maple	65	43	eastern white pine, white spruce
	eastern white pine	65	114	
	white spruce	55	129	
	red spruce	45	100	
	elm	---	0	
	eastern hemlock	---	0	
	gray birch	---	0	
	sugar maple	---	0	
	balsam fir	---	0	
	tamarack	---	0	
RhA:				
Rhinebeck	sugar maple	65	43	European larch, Norway spruce, eastern white pine, white spruce
	northern red oak	70	57	
	eastern white pine	75	143	
	red maple	70	43	
RhB:				
Rhinebeck	sugar maple	65	43	European larch, Norway spruce, eastern white pine, white spruce
	northern red oak	70	57	
	eastern white pine	75	143	
	red maple	70	43	
Sa:				
Scarboro	red maple	55	29	eastern arborvitae
	Atlantic white cedar	45	0	
	eastern white pine	55	86	
SCB:				
Schroon, stony	sugar maple	55	29	European larch, eastern white pine, red pine, white spruce
	northern red oak	70	57	
	eastern white pine	65	114	
	red spruce	50	114	
	white spruce	50	114	
	black cherry	72	43	
SeA:				
Scio	northern red oak	75	57	European larch, Norway spruce, eastern white pine, red pine, white spruce
	white ash	85	57	
	sugar maple	70	43	
	black cherry	80	57	
	eastern hemlock	70	0	
	eastern white pine	85	143	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
SeB:				
Scio	northern red oak	75	57	European larch, Norway spruce, eastern white pine, red pine, white spruce
	white ash	85	57	
	sugar maple	70	43	
	black cherry	80	57	
	eastern hemlock	70	0	
	eastern white pine	85	143	
Sh:				
Shaker	red maple	55	29	eastern white pine, white spruce
	eastern white pine	57	100	
SKB:				
Skerry, very stony	eastern white pine	80	143	eastern white pine, white spruce
	sugar maple	60	43	
	white spruce	60	143	
	balsam fir	57	114	
Sn:				
Sun	red maple	65	43	eastern arborvitae
StA:				
Sutton	northern red oak	62	43	European larch, Norway spruce, eastern white pine, white spruce
	red spruce	50	114	
	sugar maple	54	29	
	eastern white pine	62	114	
	black cherry	72	43	
StB:				
Sutton	northern red oak	62	43	European larch, Norway spruce, eastern white pine, white spruce
	red spruce	50	114	
	sugar maple	54	29	
	eastern white pine	62	114	
	black cherry	72	43	
Te:				
Teel	sugar maple	70	43	European larch, Norway spruce, black walnut, eastern white pine
	white ash	85	57	
Tg:				
Tioga	northern red oak	75	57	European larch, Norway spruce, black walnut, eastern white pine, tuliptree
	tuliptree	85	86	
	sugar maple	67	43	
TNC:				
Tunbridge, very bouldery	sugar maple	60	43	eastern white pine, red spruce, white spruce
	northern red oak	---	0	
	eastern white pine	50	86	
Lyman, very bouldery	sugar maple	50	29	balsam fir, eastern white pine, red pine, white spruce
	white spruce	55	129	
	balsam fir	60	114	
	red spruce	40	86	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
TNE:				
Tunbridge, very bouldery	sugar maple	60	43	eastern white pine, red spruce, white spruce
	northern red oak	---	0	
	eastern white pine	50	86	
Lyman, very bouldery	sugar maple	50	29	balsam fir, eastern white pine, red pine, white spruce
	white spruce	55	129	
	balsam fir	60	114	
	red spruce	40	86	
TNF:				
Tunbridge, very bouldery	sugar maple	60	43	eastern white pine, red spruce, white spruce
	northern red oak	---	0	
	eastern white pine	50	86	
Lyman, very bouldery	sugar maple	50	29	balsam fir, eastern white pine, red pine, white spruce
	white spruce	55	129	
	balsam fir	60	114	
	red spruce	40	86	
Ud:				
Udipsamments, dredged	---	---	---	---
Ue:				
Udorthents, smoothed	---	---	---	---
UnB:				
Unadilla	northern red oak	80	57	European larch, Norway spruce, black cherry, eastern white pine, red pine, white spruce
	sugar maple	70	43	
	eastern white pine	85	143	
	black cherry	80	57	
	white ash	95	57	
UnC:				
Unadilla	northern red oak	80	57	European larch, Norway spruce, black cherry, eastern white pine, red pine, white spruce
	sugar maple	70	43	
	eastern white pine	85	143	
	black cherry	80	57	
	white ash	95	57	
W:				
Water	---	---	---	---
Wa:				
Wareham	eastern white pine	65	114	eastern white pine, white spruce
	red maple	65	43	
	red spruce	45	100	
WnA:				
Windsor	northern red oak	52	29	Norway spruce, eastern white pine, red pine
	eastern white pine	57	100	
	red pine	61	100	
	sugar maple	55	29	
WnB:				
Windsor, undulating	northern red oak	52	29	Norway spruce, eastern white pine, red pine
	eastern white pine	57	100	
	red pine	61	100	
	sugar maple	55	29	

Table 7.--Forest Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
WnC:				
Windsor, rolling	northern red oak	52	29	Norway spruce, eastern white pine, red pine
	eastern white pine	57	100	
	red pine	61	100	
	sugar maple	55	29	
WnD:				
Windsor, hilly	northern red oak	52	29	Norway spruce, eastern white pine, red pine
	eastern white pine	57	100	
	red pine	61	100	
	sugar maple	55	29	
WO:				
Wonsqueak, ponded	black spruce	15	29	---
	tamarack	---	0	
	balsam fir	---	0	
WrB:				
Woodbridge	northern red oak	72	57	European larch, eastern white pine, red pine
	eastern white pine	67	114	
	red pine	65	114	
	red spruce	50	114	
	sugar maple	65	43	

Table 8.--Forestland Management, Part I

(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	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings	
		Rating class and limiting features	Value	Rating class and limiting features	Value
ALA:					
Allagash	80	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
ALC:					
Allagash	80	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
ALE:					
Allagash	80	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Strength	0.50
As:					
Allis	80	Moderate		Poorly suited	
		Strength	0.50	Wetness	1.00
				Strength	0.50
BCC:					
Becket, very bouldery	70	Slight		Moderately suited	
				Slope	0.50
				Rock fragments	0.50
BCE:					
Becket, very bouldery	70	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
				Rock fragments	0.50
BEC:					
Becket, very bouldery	40	Slight		Moderately suited	
				Slope	0.50
				Rock fragments	0.50
Tunbridge, very bouldery	40	Moderate		Moderately suited	
		Restrictive layer	0.50	Slope	0.50
		Strength	0.50	Rock fragments	0.50
BEE:					
Becket, very bouldery	40	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
				Rock fragments	0.50
Tunbridge, very bouldery	40	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50	Rock fragments	0.50
		Strength	0.50		

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
BHC:					
Berkshire, very bouldery	70	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Rock fragments	0.50
				Strength	0.50
BHE:					
Berkshire, very bouldery	70	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Rock fragments	0.50
				Strength	0.50
BLC:					
Berkshire, very bouldery	40	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Rock fragments	0.50
				Strength	0.50
Tunbridge, very bouldery	40	Moderate		Moderately suited	
		Restrictive layer	0.50	Slope	0.50
		Strength	0.50	Rock fragments	0.50
BLE:					
Berkshire, very bouldery	40	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Rock fragments	0.50
				Strength	0.50
Tunbridge, very bouldery	40	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50	Rock fragments	0.50
		Strength	0.50		
BmB:					
Bernardston	85	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
				Wetness	0.50
BmC:					
Bernardston	85	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
				Wetness	0.50
BmD:					
Bernardston	85	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Strength	0.50
				Wetness	0.50

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
BnB:					
Bernardston	50	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
				Wetness	0.50
Manlius	30	Moderate		Moderately suited	
		Restrictive layer	0.50	Strength	0.50
				Slope	0.50
Nassau	15	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
BnC:					
Bernardston	50	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
				Wetness	0.50
Manlius	30	Moderate		Moderately suited	
		Restrictive layer	0.50	Slope	0.50
				Strength	0.50
Nassau	15	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
BnD:					
Bernardston	50	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Strength	0.50
				Wetness	0.50
Manlius	30	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50	Strength	0.50
Nassau	15	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50		
BOC:					
Bice, stony	75	Slight		Moderately suited	
				Slope	0.50
BOE:					
Bice, stony	75	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
BPC:					
Bice, stony	50	Slight		Moderately suited	
				Slope	0.50
Woodstock, stony	40	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
BPE:					
Bice, stony	50	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings	
		Rating class and limiting features	Value	Rating class and limiting features	Value
BPE:					
Woodstock, stony----	40	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50		
BtB:					
Broadalbin----------	70	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
				Wetness	0.50
BtC:					
Broadalbin----------	70	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
				Wetness	0.50
BtD:					
Broadalbin----------	70	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Strength	0.50
				Wetness	0.50
BvB:					
Broadalbin----------	50	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
				Wetness	0.50
Manlius-------------	30	Moderate		Moderately suited	
		Restrictive layer	0.50	Strength	0.50
				Slope	0.50
Nassau--------------	15	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
BvC:					
Broadalbin----------	50	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
				Wetness	0.50
Manlius-------------	30	Moderate		Moderately suited	
		Restrictive layer	0.50	Slope	0.50
				Strength	0.50
Nassau--------------	15	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
BvD:					
Broadalbin----------	50	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Strength	0.50
				Wetness	0.50
Manlius-------------	30	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50	Strength	0.50

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
BvD:					
Nassau	15	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50		
BxB:					
Burdett	75	Moderate		Moderately suited	
		Strength	0.50	Wetness	0.50
				Strength	0.50
				Slope	0.50
CcB:					
Charlton	80	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
CcC:					
Charlton	80	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
CcD:					
Charlton	80	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Strength	0.50
CeB:					
Chatfield, undulating	50	Moderate		Moderately suited	
		Restrictive layer	0.50	Strength	0.50
		Strength	0.50	Slope	0.50
Hollis, undulating	30	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
CeC:					
Chatfield, rolling	50	Moderate		Moderately suited	
		Restrictive layer	0.50	Slope	0.50
		Strength	0.50	Strength	0.50
Hollis, rolling	30	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
CfD:					
Chatfield, hilly	50	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50	Strength	0.50
		Strength	0.50		
Hollis, hilly	30	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50		
Cg:					
Cheektowaga	70	Moderate		Poorly suited	
		Strength	0.50	Ponding	1.00
				Wetness	1.00
				Strength	0.50

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
ChB:					
Chenango, loamy substratum---------	85	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
ChC:					
Chenango, loamy subtratum----------	85	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
ClA:					
Claverack-----------	70	Slight		Moderately suited	
				Wetness	0.50
ClB:					
Claverack-----------	70	Slight		Moderately suited	
				Slope	0.50
				Wetness	0.50
COC:					
Colton--------------	90	Moderate		Moderately suited	
		Sandiness	0.50	Slope	0.50
				Sandiness	0.50
COE:					
Colton--------------	90	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Sandiness	0.50	Sandiness	0.50
Cs:					
Cosad---------------	70	Slight		Poorly suited	
				Wetness	1.00
DeA:					
Deerfield-----------	75	Slight		Well suited	
DeB:					
Deerfield, undulating---------	75	Slight		Moderately suited	
				Slope	0.50
ElB:					
Elmridge------------	70	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
				Wetness	0.50
FaB:					
Farmington, rocky---	75	Severe		Moderately suited	
		Restrictive layer	1.00	Strength	0.50
		Strength	0.50	Slope	0.50

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
FcC:					
Farmington, very rocky	70	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
		Strength	0.50	Strength	0.50
Fl:					
Fluvaquents, frequently flooded	60	Severe		Poorly suited	
		Flooding	1.00	Ponding	1.00
		Strength	0.50	Flooding	1.00
		Sandiness	0.50	Wetness	1.00
				Sandiness	0.50
				Strength	0.50
FU:					
Fluvaquents, flooded	55	Severe		Poorly suited	
		Flooding	1.00	Ponding	1.00
		Strength	0.50	Flooding	1.00
		Sandiness	0.50	Wetness	1.00
				Sandiness	0.50
				Strength	0.50
Udipsamments	25	Moderate		Moderately suited	
		Sandiness	0.50	Sandiness	0.50
GaB:					
Galway	65	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
		Restrictive layer	0.50	Slope	0.50
GaC:					
Galway	70	Moderate		Moderately suited	
		Restrictive layer	0.50	Slope	0.50
		Strength	0.50	Strength	0.50
HcA:					
Hinckley	80	Moderate		Moderately suited	
		Sandiness	0.50	Sandiness	0.50
HcB:					
Hinckley, undulating	80	Moderate		Moderately suited	
		Sandiness	0.50	Sandiness	0.50
				Slope	0.50
HcC:					
Hinckley, rolling	80	Moderate		Moderately suited	
		Sandiness	0.50	Slope	0.50
				Sandiness	0.50
HcD:					
Hinckley, hilly	80	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Sandiness	0.50	Sandiness	0.50
HoA:					
Hoosic	70	Slight		Well suited	

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
HoB:					
Hoosic, undulating--	70	Slight		Moderately suited	
				Slope	0.50
HoC:					
Hoosic, rolling-----	70	Slight		Moderately suited	
				Slope	0.50
HuB:					
Hudson--------------	70	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
				Wetness	0.50
HuC:					
Hudson--------------	70	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
				Wetness	0.50
HuD:					
Hudson, hilly-------	70	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Strength	0.50
				Wetness	0.50
HuE:					
Hudson--------------	70	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Strength	0.50	Strength	0.50
				Wetness	0.50
In:					
Ilion---------------	90	Moderate		Poorly suited	
		Strength	0.50	Wetness	1.00
				Strength	0.50
Lm:					
Limerick------------	50	Severe		Poorly suited	
		Flooding	1.00	Flooding	1.00
		Strength	0.50	Wetness	1.00
				Strength	0.50
Saco----------------	40	Severe		Poorly suited	
		Flooding	1.00	Flooding	1.00
		Strength	0.50	Wetness	1.00
				Strength	0.50
LY:					
Lyme, very stony----	80	Moderate		Poorly suited	
		Strength	0.50	Wetness	1.00
				Strength	0.50
Ma:					
Madalin-------------	80	Moderate		Poorly suited	
		Strength	0.50	Ponding	1.00
				Wetness	1.00
				Strength	0.50

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
MnB:					
Manlius, undulating	50	Moderate		Moderately suited	
		Restrictive layer	0.50	Strength	0.50
				Slope	0.50
Nassau	30	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
MnC:					
Manlius, rolling	50	Moderate		Moderately suited	
		Restrictive layer	0.50	Slope	0.50
				Strength	0.50
Nassau	30	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
MnD:					
Manlius, hilly	50	Moderate		Poorly suited	
		Restrictive layer	0.50	Slope	1.00
		Slope	0.50	Strength	0.50
Nassau	30	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50		
Ms:					
Massena	70	Moderate		Moderately suited	
		Strength	0.50	Wetness	0.50
				Strength	0.50
MvA:					
Mosherville	75	Moderate		Moderately suited	
		Strength	0.50	Wetness	0.50
				Strength	0.50
MvB:					
Mosherville	75	Moderate		Moderately suited	
		Strength	0.50	Wetness	0.50
				Strength	0.50
				Slope	0.50
MxB:					
Mosherville	50	Moderate		Moderately suited	
		Strength	0.50	Wetness	0.50
				Strength	0.50
				Slope	0.50
Hornell, undulating	40	Moderate		Moderately suited	
		Strength	0.50	Wetness	0.50
		Restrictive layer	0.50	Strength	0.50
				Slope	0.50
NaC:					
Nassau, rolling	60	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
Rock Outcrop	20	Not rated		Not rated	

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
NaD:					
Nassau, hilly-------	60	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50		
Rock Outcrop--------	20	Not rated		Not rated	
Ne:					
Newstead------------	70	Moderate		Poorly suited	
		Strength	0.50	Wetness	1.00
		Restrictive layer	0.50	Strength	0.50
NuB:					
Nunda---------------	80	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
				Wetness	0.50
NuC:					
Nunda---------------	70	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
				Wetness	0.50
OaA:					
Oakville------------	70	Slight		Well suited	
OaB:					
Oakville, undulating	70	Slight		Moderately suited	
				Slope	0.50
OaC:					
Oakville, rolling---	70	Slight		Moderately suited	
				Slope	0.50
OaD:					
Oakville, hilly-----	70	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
OeE:					
Oakville------------	40	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
Windsor-------------	40	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Sandiness	0.50		
Pm:					
Palms---------------	70	Moderate		Poorly suited	
		Strength	0.50	Ponding	1.00
				Strength	0.50
Pp:					
Palms, ponded-------	85	Severe		Poorly suited	
		Wetness	1.00	Ponding	1.00
		Strength	0.50	Strength	0.50

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
PtB:					
Paxton	70	Slight		Moderately suited	
				Slope	0.50
PtC:					
Paxton	70	Slight		Moderately suited	
				Slope	0.50
Pu:					
Pits, Quarry	80	Not rated		Not rated	
Pv:					
Pits, Sand And Gravel	80	Not rated		Not rated	
PwA:					
Pittstown	80	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Wetness	0.50
PwB:					
Pittstown	80	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
				Wetness	0.50
Ra:					
Raynham	60	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Wetness	0.50
RhA:					
Rhinebeck	70	Moderate		Moderately suited	
		Strength	0.50	Wetness	0.50
				Strength	0.50
RhB:					
Rhinebeck	70	Moderate		Moderately suited	
		Strength	0.50	Wetness	0.50
				Strength	0.50
				Slope	0.50
Sa:					
Scarboro	70	Severe		Poorly suited	
		Wetness	1.00	Ponding	1.00
SCB:					
Schroon, stony	80	Slight		Moderately suited	
				Strength	0.50
				Wetness	0.50
SeA:					
Scio	70	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Wetness	0.50

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
SeB:					
Scio----------------	70	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
				Wetness	0.50
Sh:					
Shaker--------------	70	Moderate		Poorly suited	
		Strength	0.50	Wetness	1.00
				Strength	0.50
SKB:					
Skerry, very stony--	70	Slight		Moderately suited	
				Wetness	0.50
Sn:					
Sun-----------------	70	Moderate		Poorly suited	
		Strength	0.50	Ponding	1.00
				Wetness	1.00
				Strength	0.50
StA:					
Sutton--------------	70	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
StB:					
Sutton--------------	70	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
Te:					
Teel----------------	70	Severe		Poorly suited	
		Flooding	1.00	Flooding	1.00
		Strength	0.50	Strength	0.50
				Wetness	0.50
Tg:					
Tioga---------------	80	Severe		Poorly suited	
		Flooding	1.00	Flooding	1.00
		Strength	0.50	Strength	0.50
TNC:					
Tunbridge, very bouldery-----------	50	Moderate		Moderately suited	
		Restrictive layer	0.50	Slope	0.50
		Strength	0.50	Rock fragments	0.50
Lyman, very bouldery	30	Severe		Moderately suited	
		Restrictive layer	1.00	Slope	0.50
				Rock fragments	0.50
TNE:					
Tunbridge, very bouldery-----------	50	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50	Rock fragments	0.50
		Strength	0.50		

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
TNE:					
Lyman, very bouldery	30	Severe		Poorly suited	
		Restrictive layer	1.00	Slope	1.00
		Slope	0.50	Rock fragments	0.50
TNF:					
Tunbridge, very bouldery-----------	50	Severe		Poorly suited	
		Slope	1.00	Slope	1.00
		Strength	0.50	Rock fragments	0.50
Lyman, very bouldery	30	Severe		Poorly suited	
		Slope	1.00	Slope	1.00
				Rock fragments	0.50
Ud:					
Udipsamments, dredged------------	90	Severe		Poorly suited	
		Flooding	1.00	Flooding	1.00
		Sandiness	0.50	Sandiness	0.50
Ue:					
Udorthents, smoothed	80	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
UnB:					
Unadilla------------	70	Moderate		Moderately suited	
		Strength	0.50	Strength	0.50
				Slope	0.50
UnC:					
Unadilla------------	70	Moderate		Moderately suited	
		Strength	0.50	Slope	0.50
				Strength	0.50
W:					
Water---------------	100	Not rated		Not rated	
Wa:					
Wareham-------------	70	Slight		Poorly suited	
				Wetness	1.00
WnA:					
Windsor-------------	80	Slight		Well suited	
WnB:					
Windsor, undulating-	80	Slight		Moderately suited	
				Slope	0.50
WnC:					
Windsor, rolling----	75	Slight		Moderately suited	
				Slope	0.50
WnD:					
Windsor, hilly------	75	Moderate		Poorly suited	
		Slope	0.50	Slope	1.00
		Sandiness	0.50		

Table 8.--Forestland Management, Part I--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings	
		Rating class and limiting features	Value	Rating class and limiting features	Value
WO:					
Wonsqueak, ponded---	70	Severe		Poorly suited	
		Strength	1.00	Ponding	1.00
				Strength	1.00
				Wetness	1.00
WrB:					
Woodbridge----------	70	Slight		Moderately suited	
				Strength	0.50
				Slope	0.50

Table 9.--Forestland Management, Part II

(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	Pct. of map unit	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
ALA:							
Allagash	80	Slight		Slight		Moderately suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Strength	0.50
ALC:							
Allagash	80	Slight		Severe		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
ALE:							
Allagash	80	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.55	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
As:							
Allis	80	Slight		Slight		Poorly suited	
						Wetness	1.00
						Strength	0.50
BCC:							
Becket, very bouldery	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.20	Slope/erodibility	0.62	Slope	0.50
						Rock fragments	0.50
BCE:							
Becket, very bouldery	70	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50
BEC:							
Becket, very bouldery	40	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
						Rock fragments	0.50
Tunbridge, very bouldery	40	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
						Rock fragments	0.50
BEE:							
Becket, very bouldery	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50
Tunbridge, very bouldery	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
BHC:							
Berkshire, very bouldery	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
						Rock fragments	0.50
						Strength	0.50
BHE:							
Berkshire, very bouldery	70	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50
						Strength	0.50
BLC:							
Berkshire, very bouldery	40	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
						Rock fragments	0.50
						Strength	0.50
Tunbridge, very bouldery	40	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
						Rock fragments	0.50
BLE:							
Berkshire, very bouldery	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50
						Strength	0.50
Tunbridge, very bouldery	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50
BmB:							
Bernardston	85	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
						Wetness	0.50
BmC:							
Bernardston	85	Slight		Severe		Moderately suited	
		Slope/erodibility	0.20	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
						Wetness	0.50
BmD:							
Bernardston	85	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
						Wetness	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
BnB:							
Bernardston	50	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
						Wetness	0.50
Manlius	30	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
Nassau	15	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Slope	0.50
BnC:							
Bernardston	50	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
						Wetness	0.50
Manlius	30	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
Nassau	15	Moderate		Moderate		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	0.75	Slope	0.50
BnD:							
Bernardston	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
						Wetness	0.50
Manlius	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
Nassau	15	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
BOC:							
Bice, stony	75	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
BOE:							
Bice, stony	75	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
BPC:							
Bice, stony	50	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
Woodstock, stony	40	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
BPE:							
Bice, stony	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
Woodstock, stony	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
BtB:							
Broadalbin	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
						Wetness	0.50
BtC:							
Broadalbin	70	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
						Wetness	0.50
BtD:							
Broadalbin	70	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.49	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
						Wetness	0.50
BvB:							
Broadalbin	50	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
						Wetness	0.50
Manlius	30	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
Nassau	15	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Slope	0.50
BvC:							
Broadalbin	50	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
						Wetness	0.50
Manlius	30	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
Nassau	15	Moderate		Moderate		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	0.75	Slope	0.50
BvD:							
Broadalbin	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.44	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
						Wetness	0.50
Manlius	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
BvD:							
Nassau	15	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
BxB:							
Burdett	75	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Wetness	0.50
						Strength	0.50
						Slope	0.50
CcB:							
Charlton	80	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
CcC:							
Charlton	80	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
CcD:							
Charlton	80	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
CeB:							
Chatfield, undulating	50	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
Hollis, undulating	30	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Slope	0.50
CeC:							
Chatfield, rolling	50	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
Hollis, rolling	30	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
CfD:							
Chatfield, hilly	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
Hollis, hilly	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
Cg:							
Cheektowaga	70	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Ponding	1.00
						Wetness	1.00
						Strength	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
ChB:							
Chenango, loamy substratum	85	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
ChC:							
Chenango, loamy subtratum	85	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
ClA:							
Claverack	70	Slight		Slight		Moderately suited	
		Slope/erodibility	0.04	Slope/erodibility	0.12	Wetness	0.50
ClB:							
Claverack	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Slope	0.50
						Wetness	0.50
COC:							
Colton	90	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
						Sandiness	0.50
COE:							
Colton	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
						Sandiness	0.50
Cs:							
Cosad	70	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Wetness	1.00
DeA:							
Deerfield	75	Slight		Slight		Well suited	
		Slope/erodibility	0.04	Slope/erodibility	0.12		
DeB:							
Deerfield, undulating	75	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Slope	0.50
ElB:							
Elmridge	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
						Wetness	0.50
HcC:							
Hinckley, rolling	80	Moderate		Moderate		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	0.75	Slope	0.50
						Sandiness	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
FaB:							
Farmington, rocky---	75	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
FcC:							
Farmington, very rocky--------------	70	Slight		Severe		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
Fl:							
Fluvaquents, frequently flooded-	60	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Ponding	1.00
						Flooding	1.00
						Wetness	1.00
						Sandiness	0.50
						Strength	0.50
FU:							
Fluvaquents, flooded	55	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Ponding	1.00
						Flooding	1.00
						Wetness	1.00
						Sandiness	0.50
						Strength	0.50
Udipsamments--------	25	Slight		Slight		Moderately suited	
		Slope/erodibility	0.04	Slope/erodibility	0.12	Sandiness	0.50
GaB:							
Galway--------------	65	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
GaC:							
Galway--------------	70	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
HcA:							
Hinckley------------	80	Slight		Slight		Moderately suited	
		Slope/erodibility	0.02	Slope/erodibility	0.06	Sandiness	0.50
HcB:							
Hinckley, undulating	80	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Sandiness	0.50
						Slope	0.50
HcD:							
Hinckley, hilly-----	80	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
						Sandiness	0.50
HoA:							
Hoosic--------------	70	Slight		Slight		Well suited	
		Slope/erodibility	0.02	Slope/erodibility	0.06		

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
HoB:							
Hoosic, undulating	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Slope	0.50
HoC:							
Hoosic, rolling	70	Moderate		Moderate		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	0.75	Slope	0.50
HuB:							
Hudson	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
						Wetness	0.50
HuC:							
Hudson	70	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.29	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
						Wetness	0.50
HuD:							
Hudson, hilly	70	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.49	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
						Wetness	0.50
HuE:							
Hudson	70	Severe		Severe		Poorly suited	
		Slope/erodibility	0.73	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
						Wetness	0.50
In:							
Ilion	90	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Wetness	1.00
						Strength	0.50
Lm:							
Limerick	50	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Flooding	1.00
						Wetness	1.00
						Strength	0.50
Saco	40	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Strength	0.50
LY:							
Lyme, very stony	80	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Wetness	1.00
						Strength	0.50
Ma:							
Madalin	80	Slight		Slight		Poorly suited	
						Ponding	1.00
						Wetness	1.00
						Strength	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
MnB:							
Manlius, undulating	50	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
Nassau	30	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Slope	0.50
MnC:							
Manlius, rolling	50	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
Nassau	30	Moderate		Moderate		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	0.75	Slope	0.50
MnD:							
Manlius, hilly	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
						Strength	0.50
Nassau	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
Ms:							
Massena	70	Slight		Slight		Moderately suited	
		Slope/erodibility	0.04	Slope/erodibility	0.22	Wetness	0.50
						Strength	0.50
MvA:							
Mosherville	75	Slight		Slight		Moderately suited	
		Slope/erodibility	0.05	Slope/erodibility	0.22	Wetness	0.50
						Strength	0.50
MvB:							
Mosherville	75	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Wetness	0.50
						Strength	0.50
						Slope	0.50
MxB:							
Mosherville	50	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Wetness	0.50
						Strength	0.50
						Slope	0.50
Hornell, undulating	40	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Wetness	0.50
						Strength	0.50
						Slope	0.50
NaC:							
Nassau, rolling	60	Moderate		Moderate		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	0.75	Slope	0.50
Rock Outcrop	20	Not rated		Not rated		Not rated	

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
NaD:							
Nassau, hilly	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
Rock Outcrop	20	Not rated		Not rated		Not rated	
Ne:							
Newstead	70	Slight		Slight		Poorly suited	
		Slope/erodibility	0.04	Slope/erodibility	0.22	Wetness	1.00
						Strength	0.50
NuB:							
Nunda	80	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
						Wetness	0.50
NuC:							
Nunda	70	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.29	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
						Wetness	0.50
OaA:							
Oakville	70	Slight		Slight		Well suited	
		Slope/erodibility	0.02	Slope/erodibility	0.06		
OaB:							
Oakville, undulating	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Slope	0.50
OaC:							
Oakville, rolling	70	Moderate		Moderate		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	0.75	Slope	0.50
OaD:							
Oakville, hilly	70	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
OeE:							
Oakville	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.59	Slope/erodibility	1.00	Slope	1.00
Windsor	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.59	Slope/erodibility	1.00	Slope	1.00
Pm:							
Palms	70	Slight		Slight		Poorly suited	
						Ponding	1.00
						Strength	0.50
Pp:							
Palms, ponded	85	Slight		Slight		Poorly suited	
						Ponding	1.00
						Strength	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
PtB:							
Paxton	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Slope	0.50
PtC:							
Paxton	70	Moderate		Moderate		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	0.75	Slope	0.50
Pu:							
Pits, Quarry	80	Not rated		Not rated		Not rated	
Pv:							
Pits, Sand And Gravel	80	Not rated		Not rated		Not rated	
PwA:							
Pittstown	80	Slight		Slight		Moderately suited	
		Slope/erodibility	0.04	Slope/erodibility	0.22	Strength	0.50
						Wetness	0.50
PwB:							
Pittstown	80	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
						Wetness	0.50
Ra:							
Raynham	60	Slight		Slight		Moderately suited	
		Slope/erodibility	0.05	Slope/erodibility	0.22	Strength	0.50
						Wetness	0.50
RhA:							
Rhinebeck	70	Slight		Slight		Moderately suited	
		Slope/erodibility	0.05	Slope/erodibility	0.22	Wetness	0.50
						Strength	0.50
RhB:							
Rhinebeck	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Wetness	0.50
						Strength	0.50
						Slope	0.50
Sa:							
Scarboro	70	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.06	Ponding	1.00
SCB:							
Schroon, stony	80	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.08	Slope/erodibility	0.44	Strength	0.50
						Wetness	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
SeA:							
Scio	70	Slight		Slight		Moderately suited	
		Slope/erodibility	0.05	Slope/erodibility	0.22	Strength	0.50
						Wetness	0.50
SeB:							
Scio	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
						Wetness	0.50
Sh:							
Shaker	70	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Wetness	1.00
						Strength	0.50
SKB:							
Skerry, very stony	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.08	Slope/erodibility	0.44	Wetness	0.50
Sn:							
Sun	70	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.06	Ponding	1.00
						Wetness	1.00
						Strength	0.50
StA:							
Sutton	70	Slight		Slight		Moderately suited	
		Slope/erodibility	0.04	Slope/erodibility	0.22	Strength	0.50
StB:							
Sutton	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
Te:							
Teel	70	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.11	Flooding	1.00
						Strength	0.50
						Wetness	0.50
Tg:							
Tioga	80	Slight		Slight		Poorly suited	
		Slope/erodibility	0.05	Slope/erodibility	0.22	Flooding	1.00
						Strength	0.50
TNC:							
Tunbridge, very bouldery	50	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
						Rock fragments	0.50
Lyman, very bouldery	30	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.18	Slope/erodibility	0.56	Slope	0.50
						Rock fragments	0.50

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
TNE:							
Tunbridge, very bouldery	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50
Lyman, very bouldery	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.51	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50
TNF:							
Tunbridge, very bouldery	50	Severe		Severe		Poorly suited	
		Slope/erodibility	0.78	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50
Lyman, very bouldery	30	Severe		Severe		Poorly suited	
		Slope/erodibility	0.78	Slope/erodibility	1.00	Slope	1.00
						Rock fragments	0.50
Ud:							
Udipsamments, dredged	90	Slight		Slight		Poorly suited	
		Slope/erodibility	0.08	Slope/erodibility	0.25	Flooding	1.00
						Sandiness	0.50
Ue:							
Udorthents, smoothed	80	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.07	Slope/erodibility	0.33	Strength	0.50
UnB:							
Unadilla	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.15	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50
UnC:							
Unadilla	70	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.29	Slope/erodibility	1.00	Slope	0.50
						Strength	0.50
W:							
Water	100	Not rated		Not rated		Not rated	
Wa:							
Wareham	70	Slight		Slight		Poorly suited	
		Slope/erodibility	0.02	Slope/erodibility	0.06	Wetness	1.00
WnA:							
Windsor	80	Slight		Slight		Well suited	
		Slope/erodibility	0.02	Slope/erodibility	0.06		

Table 9.--Forestland Management, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
WnB:							
Windsor, undulating-	80	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.38	Slope	0.50
WnC:							
Windsor, rolling----	75	Moderate		Moderate		Moderately suited	
		Slope/erodibility	0.24	Slope/erodibility	0.75	Slope	0.50
WnD:							
Windsor, hilly------	75	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.39	Slope/erodibility	1.00	Slope	1.00
WO:							
Wonsqueak, ponded---	70	Slight		Slight		Poorly suited	
						Ponding	1.00
						Strength	1.00
						Wetness	1.00
WrB:							
Woodbridge----------	70	Slight		Moderate		Moderately suited	
		Slope/erodibility	0.12	Slope/erodibility	0.67	Strength	0.50
						Slope	0.50

Table 10.--Forestland Management, Part III

(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	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
ALA:							
Allagash	80	Well suited		Moderately suited		Low	
				Strength	0.50		
ALC:							
Allagash	80	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
ALE:							
Allagash	80	Unsuited		Moderately suited		Low	
		Slope	1.00	Strength	0.50		
				Slope	0.50		
As:							
Allis	80	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
BCC:							
Becket, very bouldery	70	Moderately suited		Moderately suited		Moderate	
		Rock fragments	0.50	Rock fragments	0.50	Soil reaction	0.50
		Slope	0.50				
BCE:							
Becket, very bouldery	70	Unsuited		Moderately suited		Moderate	
		Slope	1.00	Rock fragments	0.50	Soil reaction	0.50
		Rock fragments	0.50	Slope	0.50		
BEC:							
Becket, very bouldery	40	Moderately suited		Moderately suited		Moderate	
		Rock fragments	0.50	Rock fragments	0.50	Soil reaction	0.50
		Slope	0.50				
Tunbridge, very bouldery	40	Moderately suited		Moderately suited		Moderate	
		Rock fragments	0.50	Rock fragments	0.50	Soil reaction	0.50
		Slope	0.50				
BEE:							
Becket, very bouldery	40	Unsuited		Moderately suited		Moderate	
		Slope	1.00	Rock fragments	0.50	Soil reaction	0.50
		Rock fragments	0.50	Slope	0.50		
Tunbridge, very bouldery	40	Unsuited		Moderately suited		Moderate	
		Slope	1.00	Rock fragments	0.50	Soil reaction	0.50
		Rock fragments	0.50	Slope	0.50		

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
BHC:							
Berkshire, very bouldery----------	70	Moderately suited		Moderately suited		Moderate	
		Rock fragments	0.50	Rock fragments	0.50	Soil reaction	0.50
		Slope	0.50	Strength	0.50		
BHE:							
Berkshire, very bouldery----------	70	Unsuited		Moderately suited		Moderate	
		Slope	1.00	Rock fragments	0.50	Soil reaction	0.50
		Rock fragments	0.50	Strength	0.50		
				Slope	0.50		
BLC:							
Berkshire, very bouldery----------	40	Moderately suited		Moderately suited		Moderate	
		Rock fragments	0.50	Rock fragments	0.50	Soil reaction	0.50
		Slope	0.50	Strength	0.50		
Tunbridge, very bouldery----------	40	Moderately suited		Moderately suited		Moderate	
		Rock fragments	0.50	Rock fragments	0.50	Soil reaction	0.50
		Slope	0.50				
BLE:							
Berkshire, very bouldery----------	40	Unsuited		Moderately suited		Moderate	
		Slope	1.00	Rock fragments	0.50	Soil reaction	0.50
		Rock fragments	0.50	Strength	0.50		
				Slope	0.50		
Tunbridge, very bouldery----------	40	Unsuited		Moderately suited		Moderate	
		Slope	1.00	Rock fragments	0.50	Soil reaction	0.50
		Rock fragments	0.50	Slope	0.50		
BmB:							
Bernardston---------	85	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
BmC:							
Bernardston---------	85	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
BmD:							
Bernardston---------	85	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
				Slope	0.50		
BnB:							
Bernardston---------	50	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
Manlius-------------	30	Moderately suited		Moderately suited		Low	
		Rock fragments	0.50	Strength	0.50		
		Slope	0.50				

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
BnB:							
Nassau	15	Moderately suited		Well suited		Low	
		Rock fragments	0.50				
		Slope	0.50				
BnC:							
Bernardston	50	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
Manlius	30	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
		Rock fragments	0.50				
Nassau	15	Moderately suited		Well suited		Low	
		Rock fragments	0.50				
		Slope	0.50				
BnD:							
Bernardston	50	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
				Slope	0.50		
Manlius	30	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
		Rock fragments	0.50	Slope	0.50		
Nassau	15	Poorly suited		Moderately suited		Low	
		Slope	0.75	Slope	0.50		
		Rock fragments	0.50				
BOC:							
Bice, stony	75	Moderately suited		Well suited		Low	
		Slope	0.50				
BOE:							
Bice, stony	75	Unsuited		Moderately suited		Low	
		Slope	1.00	Slope	0.50		
BPC:							
Bice, stony	50	Moderately suited		Well suited		Low	
		Slope	0.50				
Woodstock, stony	40	Moderately suited		Well suited		Low	
		Slope	0.50				
BPE:							
Bice, stony	50	Unsuited		Moderately suited		Low	
		Slope	1.00	Slope	0.50		
Woodstock, stony	40	Unsuited		Moderately suited		Low	
		Slope	1.00	Slope	0.50		
BtB:							
Broadalbin	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
BtC:							
Broadalbin----------	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
BtD:							
Broadalbin----------	70	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
				Slope	0.50		
BvB:							
Broadalbin----------	50	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
Manlius-------------	30	Moderately suited		Moderately suited		Low	
		Rock fragments	0.50	Strength	0.50		
		Slope	0.50				
Nassau--------------	15	Moderately suited		Well suited		Low	
		Rock fragments	0.50				
		Slope	0.50				
BvC:							
Broadalbin----------	50	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
Manlius-------------	30	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
		Rock fragments	0.50				
Nassau--------------	15	Moderately suited		Well suited		Low	
		Rock fragments	0.50				
		Slope	0.50				
BvD:							
Broadalbin----------	50	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
Manlius-------------	30	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
		Rock fragments	0.50	Slope	0.50		
Nassau--------------	15	Poorly suited		Moderately suited		Low	
		Slope	0.75	Slope	0.50		
		Rock fragments	0.50				
BxB:							
Burdett-------------	75	Moderately suited		Moderately suited		High	
		Slope	0.50	Strength	0.50	Wetness	1.00
CcB:							
Charlton------------	80	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
CcC:							
Charlton------------	80	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
CcD:							
Charlton------------	80	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
				Slope	0.50		

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
CeB:							
Chatfield, undulating	50	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
Hollis, undulating	30	Moderately suited		Well suited		Low	
		Slope	0.50				
CeC:							
Chatfield, rolling	50	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
Hollis, rolling	30	Moderately suited		Well suited		Low	
		Slope	0.50				
CfD:							
Chatfield, hilly	50	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
				Slope	0.50		
Hollis, hilly	30	Poorly suited		Moderately suited		Low	
		Slope	0.75	Slope	0.50		
Cg:							
Cheektowaga	70	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
ChB:							
Chenango, loamy substratum	85	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
		Rock fragments	0.50				
ChC:							
Chenango, loamy subtratum	85	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
		Rock fragments	0.50				
ClA:							
Claverack	70	Well suited		Well suited		Low	
ClB:							
Claverack	70	Moderately suited		Well suited		Low	
		Slope	0.50				
COC:							
Colton	90	Moderately suited		Moderately suited		Moderate	
		Sandiness	0.50	Sandiness	0.50	Soil reaction	0.50
		Slope	0.50				
		Rock fragments	0.50				
COE:							
Colton	90	Unsuited		Moderately suited		Moderate	
		Slope	1.00	Sandiness	0.50	Soil reaction	0.50
		Sandiness	0.50	Slope	0.50		
		Rock fragments	0.50				

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting		Suitability for use of harvesting equipment		Potential for seedling mortality	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Cs:							
Cosad	70	Well suited		Well suited		High	
						Wetness	1.00
DeA:							
Deerfield	75	Well suited		Well suited		Low	
DeB:							
Deerfield, undulating	75	Moderately suited		Well suited		Low	
		Slope	0.50				
ElB:							
Elmridge	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
FaB:							
Farmington, rocky	75	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
FcC:							
Farmington, very rocky	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
Fl:							
Fluvaquents, frequently flooded	60	Moderately suited		Moderately suited		High	
		Sandiness	0.50	Strength	0.50	Wetness	1.00
		Rock fragments	0.50	Sandiness	0.50		
FU:							
Fluvaquents, flooded	55	Moderately suited		Moderately suited			
		Sandiness	0.50	Strength	0.50	High	
		Rock fragments	0.50	Sandiness	0.50	Wetness	1.00
Udipsamments	25	Moderately suited		Moderately suited		Low	
		Sandiness	0.50	Sandiness	0.50		
GaB:							
Galway	65	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
GaC:							
Galway	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
HcA:							
Hinckley	80	Moderately suited		Moderately suited		Low	
		Sandiness	0.50	Sandiness	0.50		
		Rock fragments	0.50				
HcB:							
Hinckley, undulating	80	Moderately suited		Moderately suited		Low	
		Sandiness	0.50	Sandiness	0.50		
		Slope	0.50				
		Rock fragments	0.50				

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
HcC:							
Hinckley, rolling---	80	Moderately suited		Moderately suited		Low	
		Slope	0.50	Sandiness	0.50		
		Sandiness	0.50				
		Rock fragments	0.50				
HcD:							
Hinckley, hilly-----	80	Poorly suited		Moderately suited		Low	
		Slope	0.75	Sandiness	0.50		
		Sandiness	0.50	Slope	0.50		
		Rock fragments	0.50				
HoA:							
Hoosic--------------	70	Moderately suited		Well suited		Low	
		Rock fragments	0.50				
HoB:							
Hoosic, undulating--	70	Moderately suited		Well suited		Low	
		Rock fragments	0.50				
		Slope	0.50				
HoC:							
Hoosic, rolling-----	70	Moderately suited		Well suited		Low	
		Slope	0.50				
		Rock fragments	0.50				
HuB:							
Hudson--------------	70	Moderately suited		Moderately suited		Low	
		Stickiness	0.50	Strength	0.50		
		Slope	0.50				
HuC:							
Hudson--------------	70	Moderately suited		Moderately suited		Low	
		Stickiness	0.50	Strength	0.50		
		Slope	0.50				
HuD:							
Hudson, hilly-------	70	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
		Stickiness	0.50	Slope	0.50		
HuE:							
Hudson--------------	70	Unsuited		Moderately suited		Low	
		Slope	1.00	Strength	0.50		
		Stickiness	0.50	Slope	0.50		
In:							
Ilion---------------	90	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
Lm:							
Limerick------------	50	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
Saco----------------	40	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
LY:							
Lyme, very stony----	80	Moderately suited		Moderately suited		High	
		Rock fragments	0.50	Strength	0.50	Wetness	1.00

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
Ma:							
Madalin	80	Moderately suited		Moderately suited		High	
		Stickiness	0.50	Strength	0.50	Wetness	1.00
MnB:							
Manlius, undulating	50	Moderately suited		Moderately suited		Low	
		Rock fragments	0.50	Strength	0.50		
		Slope	0.50				
Nassau	30	Moderately suited		Well suited		Low	
		Rock fragments	0.50				
		Slope	0.50				
MnC:							
Manlius, rolling	50	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
		Rock fragments	0.50				
Nassau	30	Moderately suited		Well suited		Low	
		Rock fragments	0.50				
		Slope	0.50				
MnD:							
Manlius, hilly	50	Poorly suited		Moderately suited		Low	
		Slope	0.75	Strength	0.50		
		Rock fragments	0.50	Slope	0.50		
Nassau	30	Poorly suited		Moderately suited		Low	
		Slope	0.75	Slope	0.50		
		Rock fragments	0.50				
Ms:							
Massena	70	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
MvA:							
Mosherville	75	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
MvB:							
Mosherville	75	Moderately suited		Moderately suited		High	
		Slope	0.50	Strength	0.50	Wetness	1.00
MxB:							
Mosherville	50	Moderately suited		Moderately suited		High	
		Slope	0.50	Strength	0.50	Wetness	1.00
Hornell, undulating	40	Moderately suited		Moderately suited		High	
		Slope	0.50	Strength	0.50	Wetness	1.00
		Stickiness	0.50				
		Rock fragments	0.50				
NaC:							
Nassau, rolling	60	Moderately suited		Well suited		Low	
		Rock fragments	0.50				
		Slope	0.50				
Rock Outcrop	20	Not rated		Not rated		Not rated	

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
NaD:							
Nassau, hilly	60	Poorly suited		Moderately suited		Low	
		Slope	0.75	Slope	0.50		
		Rock fragments	0.50				
Rock Outcrop	20	Not rated		Not rated		Not rated	
Ne:							
Newstead	70	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
NuB:							
Nunda	80	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
NuC:							
Nunda	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
OaA:							
Oakville	70	Well suited		Well suited		Low	
OaB:							
Oakville, undulating	70	Moderately suited		Well suited		Low	
		Slope	0.50				
OaC:							
Oakville, rolling	70	Moderately suited		Well suited		Low	
		Slope	0.50				
OaD:							
Oakville, hilly	70	Poorly suited		Moderately suited		Low	
		Slope	0.75	Slope	0.50		
OeE:							
Oakville	40	Unsuited		Moderately suited		Low	
		Slope	1.00	Slope	0.50		
Windsor	40	Unsuited		Moderately suited		Low	
		Slope	1.00	Slope	0.50		
Pm:							
Palms	70	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
						Soil reaction	1.00
Pp:							
Palms, ponded	85	Unsuited		Poorly suited		High	
		Wetness	1.00	Wetness	1.00	Wetness	1.00
				Strength	0.50	Soil reaction	1.00
PtB:							
Paxton	70	Moderately suited		Well suited		Low	
		Slope	0.50				

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
PtC:							
Paxton	70	Moderately suited		Well suited		Low	
		Slope	0.50				
Pu:							
Pits, Quarry	80	Not rated		Not rated		Not rated	
Pv:							
Pits, Sand And Gravel	80	Not rated		Not rated		Not rated	
PwA:							
Pittstown	80	Moderately suited		Moderately suited		Low	
		Rock fragments	0.50	Strength	0.50		
PwB:							
Pittstown	80	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
		Rock fragments	0.50				
Ra:							
Raynham	60	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
RhA:							
Rhinebeck	70	Moderately suited		Moderately suited		High	
		Stickiness	0.50	Strength	0.50	Wetness	1.00
RhB:							
Rhinebeck	70	Moderately suited		Moderately suited		High	
		Slope	0.50	Strength	0.50	Wetness	1.00
		Stickiness	0.50				
Sa:							
Scarboro	70	Unsuited		Poorly suited		High	
		Wetness	1.00	Wetness	1.00	Wetness	1.00
		Sandiness	0.50				
SCB:							
Schroon, stony	80	Well suited		Moderately suited		Moderate	
				Strength	0.50	Soil reaction	0.50
SeA:							
Scio	70	Well suited		Moderately suited		Low	
				Strength	0.50		
SeB:							
Scio	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
Sh:							
Shaker	70	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
SKB:							
Skerry, very stony--	70	Moderately suited		Well suited		High	
		Rock fragments	0.50			Wetness	1.00
Sn:							
Sun-----------------	70	Well suited		Moderately suited		High	
				Strength	0.50	Wetness	1.00
StA:							
Sutton--------------	70	Well suited		Moderately suited		Low	
				Strength	0.50		
StB:							
Sutton--------------	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
Te:							
Teel----------------	70	Well suited		Moderately suited		Low	
				Strength	0.50		
Tg:							
Tioga---------------	80	Well suited		Moderately suited		Low	
				Strength	0.50		
TNC:							
Tunbridge, very bouldery-----------	50	Moderately suited		Moderately suited		Moderate	
		Rock fragments	0.50	Rock fragments	0.50	Soil reaction	0.50
		Slope	0.50				
Lyman, very bouldery	30	Moderately suited		Moderately suited		Low	
		Rock fragments	0.50	Rock fragments	0.50		
		Slope	0.50				
TNE:							
Tunbridge, very bouldery-----------	50	Unsuited		Moderately suited		Moderate	
		Slope	1.00	Rock fragments	0.50	Soil reaction	0.50
		Rock fragments	0.50	Slope	0.50		
Lyman, very bouldery	30	Unsuited		Moderately suited		Low	
		Slope	1.00	Rock fragments	0.50		
		Rock fragments	0.50	Slope	0.50		
TNF:							
Tunbridge, very bouldery-----------	50	Unsuited		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Soil reaction	0.50
		Rock fragments	0.50	Rock fragments	0.50		
Lyman, very bouldery	30	Unsuited		Poorly suited		Low	
		Slope	1.00	Slope	1.00		
		Rock fragments	0.50	Rock fragments	0.50		
Ud:							
Udipsamments, dredged------------	90	Moderately suited		Moderately suited		Low	
		Sandiness	0.50	Sandiness	0.50		

Table 10.--Forestland Management, Part III--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
Ue:							
Udorthents, smoothed	80	Well suited		Moderately suited		Low	
				Strength	0.50		
UnB:							
Unadilla------------	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
UnC:							
Unadilla------------	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		
W:							
Water---------------	100	Not rated		Not rated		Not rated	
Wa:							
Wareham-------------	70	Well suited		Well suited		High	
						Wetness	1.00
WnA:							
Windsor-------------	80	Well suited		Well suited		Low	
WnB:							
Windsor, undulating-	80	Moderately suited		Well suited		Low	
		Slope	0.50				
WnC:							
Windsor, rolling----	75	Moderately suited		Well suited		Low	
		Slope	0.50				
WnD:							
Windsor, hilly------	75	Poorly suited		Moderately suited		Low	
		Slope	0.75	Slope	0.50		
WO:							
Wonsqueak, ponded---	70	Well suited		Poorly suited		High	
				Strength	1.00	Wetness	1.00
						Soil reaction	1.00
WrB:							
Woodbridge----------	70	Moderately suited		Moderately suited		Low	
		Slope	0.50	Strength	0.50		

Table 11.--Recreation, Part I

(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	Pct. of map unit	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
ALA:							
Allagash	80	Not limited		Not limited		Not limited	
ALC:							
Allagash	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
ALE:							
Allagash	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
As:							
Allis	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
BCC:							
Becket, very bouldery	70	Somewhat limited		Somewhat limited		Very limited	
		Too Stony	0.53	Too Stony	0.53	Slope	1.00
		Slope	0.16	Slope	0.16	Too Stony	0.53
BCE:							
Becket, very bouldery	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too Stony	0.53	Too Stony	0.53	Too Stony	0.53
BEC:							
Becket, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Too Stony	0.53	Too Stony	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Too Stony	0.53
Tunbridge, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Too Stony	0.53	Too Stony	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to bedrock	0.54
						Too Stony	0.53
BEE:							
Becket, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too Stony	0.53	Too Stony	0.53	Too Stony	0.53
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too Stony	0.53	Too Stony	0.53	Depth to bedrock	0.54
						Too Stony	0.53

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BHC:							
Berkshire, very bouldery-----------	70	Somewhat limited		Somewhat limited		Very limited	
		Too Stony	0.53	Too Stony	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Too Stony	0.53
BHE:							
Berkshire, very bouldery-----------	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too Stony	0.53	Too Stony	0.53	Too Stony	0.53
BLC:							
Berkshire, very bouldery-----------	40	Somewhat limited		Somewhat limited		Very limited	
		Too Stony	0.53	Too Stony	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Too Stony	0.53
Tunbridge, very bouldery-----------	40	Somewhat limited		Somewhat limited		Very limited	
		Too Stony	0.53	Too Stony	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to bedrock	0.54
						Too Stony	0.53
BLE:							
Berkshire, very bouldery-----------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too Stony	0.53	Too Stony	0.53	Too Stony	0.53
Tunbridge, very bouldery-----------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too Stony	0.53	Too Stony	0.53	Depth to bedrock	0.54
						Too Stony	0.53
BmB:							
Bernardston---------	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Slope	1.00
						Depth to saturated zone	0.77
BmC:							
Bernardston---------	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.77
BmD:							
Bernardston---------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Depth to saturated zone	0.77

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
BnB:							
Bernardston	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Slope	1.00
						Depth to saturated zone	0.77
Manlius	30	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Slope	1.00
						Depth to bedrock	0.90
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
						Slope	1.00
BnC:							
Bernardston	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.77	Slope	0.63	Slope	1.00
		Slope	0.63	Depth to saturated zone	0.43	Depth to saturated zone	0.77
Manlius	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Depth to bedrock	0.90
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
BnD:							
Bernardston	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Depth to saturated zone	0.77
Manlius	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Depth to bedrock	0.90
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
BOC:							
Bice, stony	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
BOE:							
Bice, stony	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
BPC:							
Bice, stony---------	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Woodstock, stony----	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
BPE:							
Bice, stony---------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Woodstock, stony----	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
BtB:							
Broadalbin----------	70	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.56	Depth to cemented pan	0.46	Slope	1.00
		Depth to cemented pan	0.46	Depth to saturated zone	0.28	Depth to saturated zone	0.56
						Depth to cemented pan	0.46
						Gravel content	0.14
BtC:							
Broadalbin----------	70	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.56	Depth to cemented pan	0.46	Slope	1.00
		Depth to cemented pan	0.46	Depth to saturated zone	0.28	Depth to saturated zone	0.56
		Slope	0.16	Slope	0.16	Depth to cemented pan	0.46
						Gravel content	0.14
BtD:							
Broadalbin----------	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.56	Depth to cemented pan	0.46	Depth to saturated zone	0.56
		Depth to cemented pan	0.46	Depth to saturated zone	0.28	Depth to cemented pan	0.46
						Gravel content	0.14
						Depth to bedrock	0.90
BvB:							
Broadalbin----------	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.56	Depth to cemented pan	0.46	Slope	1.00
		Depth to cemented pan	0.46	Depth to saturated zone	0.28	Depth to saturated zone	0.56
						Depth to cemented pan	0.46
						Gravel content	0.14

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
BvB:							
Manlius	30	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Slope	1.00
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
						Slope	1.00
BvC:							
Broadalbin	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.56	Depth to cemented pan	0.46	Slope	1.00
		Depth to cemented pan	0.46	Depth to saturated zone	0.28	Depth to saturated zone	0.56
		Slope	0.16	Slope	0.16	Depth to cemented pan	0.46
						Gravel content	0.14
Manlius	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Depth to bedrock	0.90
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
BvD:							
Broadalbin	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.56	Depth to cemented pan	0.46	Depth to saturated zone	0.56
		Depth to cemented pan	0.46	Depth to saturated zone	0.28	Depth to cemented pan	0.46
						Gravel content	0.14
Manlius	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Depth to bedrock	0.90
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
BxB:							
Burdett	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Slope	1.00
						Restricted permeability	0.96

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
CcB:							
Charlton	80	Not limited		Not limited		Very limited	
						Slope	1.00
						Gravel content	0.14
CcC:							
Charlton	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Gravel content	0.14
CcD:							
Charlton	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	0.14
CeB:							
Chatfield, undulating	50	Not limited		Not limited		Very limited	
						Slope	1.00
						Depth to bedrock	0.90
Hollis, undulating	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Slope	1.00
CeC:							
Chatfield, rolling	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Depth to bedrock	0.90
Hollis, rolling	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to bedrock	1.00
CfD:							
Chatfield, hilly	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Depth to bedrock	0.90
Hollis, hilly	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
Cg:							
Cheektowaga	70	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
ChB:							
Chenango, loamy substratum	85	Not limited		Not limited		Very limited	
						Slope	1.00
						Gravel content	0.13

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
ChC:							
Chenango, loamy subtratum----------	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
						Gravel content	0.13
ClA:							
Claverack-----------	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Depth to saturated zone	0.77
		Too sandy	0.12	Too sandy	0.12	Too sandy	0.12
						Slope	0.01
ClB:							
Claverack-----------	70	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Slope	1.00
		Too sandy	0.12	Too sandy	0.12	Depth to saturated zone	0.77
						Too sandy	0.12
COC:							
Colton--------------	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
COE:							
Colton--------------	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Cs:							
Cosad---------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
DeA:							
Deerfield-----------	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.07	Depth to saturated zone	0.03	Depth to saturated zone	0.07
						Slope	0.01
DeB:							
Deerfield, undulating---------	75	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.07	Depth to saturated zone	0.03	Slope	1.00
						Depth to saturated zone	0.07
ElB:							
Elmridge------------	70	Very limited		Very limited		Very limited	
		Restricted permeability	1.00	Restricted permeability	1.00	Slope	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Restricted permeability	1.00
						Depth to saturated zone	0.98

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
FaB:							
Farmington, rocky---	75	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Slope	1.00
FcC:							
Farmington, very rocky--------------	70	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
Fl:							
Fluvaquents, frequently flooded-	60	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
						Gravel content	0.99
						Content of large stones	0.01
FU:							
Fluvaquents, flooded	55	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
						Gravel content	0.99
						Content of large stones	0.01
Udipsamments--------	25	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.50	Too sandy	0.50
		Too sandy	0.50			Slope	0.01
GaB:							
Galway--------------	65	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.03	Depth to saturated zone	0.02	Slope	1.00
						Depth to bedrock	0.46
						Depth to saturated zone	0.03
GaC:							
Galway--------------	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Depth to saturated zone	0.03	Depth to saturated zone	0.02	Depth to bedrock	0.46
						Depth to saturated zone	0.03
HcA:							
Hinckley------------	80	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
HcB:							
Hinckley, undulating	80	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Slope	1.00
HcC:							
Hinckley, rolling---	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
HcD:							
Hinckley, hilly-----	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
HoA:							
Hoosic--------------	70	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.24	Gravel content	0.24	Gravel content	1.00
HoB:							
Hoosic, undulating--	70	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.24	Gravel content	0.24	Gravel content	1.00
						Slope	1.00
HoC:							
Hoosic, rolling-----	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.24	Gravel content	0.24	Gravel content	1.00
HuB:							
Hudson--------------	70	Very limited		Very limited		Very limited	
		Restricted permeability	1.00	Restricted permeability	1.00	Slope	1.00
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Restricted permeability	1.00
						Depth to saturated zone	0.77
HuC:							
Hudson--------------	70	Very limited		Very limited		Very limited	
		Restricted permeability	1.00	Restricted permeability	1.00	Slope	1.00
		Depth to saturated zone	0.77	Slope	0.63	Restricted permeability	1.00
		Slope	0.63	Depth to saturated zone	0.43	Depth to saturated zone	0.77
HuD:							
Hudson, hilly-------	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Depth to saturated zone	0.77

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
HuE:							
Hudson	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Depth to saturated zone	0.77
In:							
Ilion	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.99	Restricted permeability	0.99	Restricted permeability	0.99
Lm:							
Limerick	50	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
Saco	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
LY:							
Lyme, very stony	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too Stony	0.53	Too Stony	0.53	Too Stony	0.53
						Gravel content	0.11
Ma:							
Madalin	80	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
MnB:							
Manlius, undulating	50	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Slope	1.00
						Depth to bedrock	0.90
Nassau	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
						Slope	1.00

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
MnC:							
Manlius, rolling----	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Depth to bedrock	0.90
Nassau--------------	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
MnD:							
Manlius, hilly------	50	Very limited		Very limited		Very limited	
		Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel content	0.01	Gravel content	0.01	Gravel content	1.00
						Depth to bedrock	0.46
Nassau--------------	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
Ms:							
Massena-------------	70	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	0.85	Restricted permeability	0.85	Restricted permeability	0.85
						Slope	0.01
MvA:							
Mosherville---------	75	Very limited		Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.90	Depth to saturated zone	1.00
						Slope	0.01
MvB:							
Mosherville---------	75	Very limited		Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.90	Depth to saturated zone	1.00
						Slope	1.00
MxB:							
Mosherville---------	50	Very limited		Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.90	Depth to saturated zone	1.00
						Slope	1.00

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MxB:							
Hornell, undulating-	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Gravel content	1.00
		Gravel content	0.08	Gravel content	0.08	Slope	1.00
						Restricted permeability	0.96
						Depth to bedrock	0.90
NaC:							
Nassau, rolling-----	60	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
NaD:							
Nassau, hilly-------	60	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Gravel content	0.08	Gravel content	0.08	Gravel content	1.00
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
Ne:							
Newstead------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.01
NuB:							
Nunda---------------	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Restricted permeability	0.26	Restricted permeability	0.26	Depth to saturated zone	0.98
						Restricted permeability	0.26
NuC:							
Nunda---------------	70	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.98
		Restricted permeability	0.26	Restricted permeability	0.26	Restricted permeability	0.26
OaA:							
Oakville------------	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.12	Too sandy	0.12	Too sandy	0.12

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
OaB:							
Oakville, undulating	70	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.12	Too sandy	0.12	Slope	1.00
						Too sandy	0.12
OaC:							
Oakville, rolling---	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Too sandy	0.12	Too sandy	0.12	Too sandy	0.12
OaD:							
Oakville, hilly-----	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.12	Too sandy	0.12	Too sandy	0.12
OeE:							
Oakville------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.12	Too sandy	0.12	Too sandy	0.12
Windsor-------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Pm:							
Palms---------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
Pp:							
Palms, ponded-------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Restricted permeability	0.15	Restricted permeability	0.15	Restricted permeability	0.15
PtB:							
Paxton--------------	70	Somewhat limited		Somewhat limited		Very limited	
		Gravel content	0.06	Gravel content	0.06	Gravel content	1.00
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Slope	1.00
						Depth to saturated zone	0.01
PtC:							
Paxton--------------	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Gravel content	0.06	Gravel content	0.06	Gravel content	1.00
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to saturated zone	0.01
Pu:							
Pits, Quarry--------	80	Not rated		Not rated		Not rated	

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
Pv:							
Pits, Sand And Gravel	80	Not rated		Not rated		Not rated	
PwA:							
Pittstown	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
						Slope	0.01
PwB:							
Pittstown	80	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slope	1.00
						Depth to saturated zone	0.98
Ra:							
Raynham	60	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
						Slope	0.01
RhA:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Restricted permeability	0.96
						Slope	0.01
RhB:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.96	Restricted permeability	0.96	Slope	1.00
						Restricted permeability	0.96
Sa:							
Scarboro	70	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
SCB:							
Schroon, stony	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Depth to saturated zone	0.77
						Slope	0.50

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
SeA:							
Scio	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Depth to saturated zone	0.77
						Slope	0.01
SeB:							
Scio	70	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Slope	1.00
						Depth to saturated zone	0.77
Sh:							
Shaker	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
SKB:							
Skerry, very stony	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.95	Depth to saturated zone	0.68	Depth to saturated zone	0.95
		Too Stony	0.53	Too Stony	0.53	Too Stony	0.53
						Slope	0.50
Sn:							
Sun	70	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	0.85	Restricted permeability	0.85	Restricted permeability	0.85
StA:							
Sutton	70	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	0.01
StB:							
Sutton	70	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
Te:							
Teel	70	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
Tg:							
Tioga	80	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
						Slope	0.01
TNC:							
Tunbridge, very bouldery	50	Somewhat limited		Somewhat limited		Very limited	
		Too Stony	0.53	Too Stony	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to bedrock	0.54
						Too Stony	0.53
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too Stony	0.53	Too Stony	0.53	Slope	1.00
		Slope	0.04	Slope	0.04	Too Stony	0.53
TNE:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too Stony	0.53	Too Stony	0.53	Depth to bedrock	0.54
						Too Stony	0.53
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Too Stony	0.53	Too Stony	0.53	Too Stony	0.53
TNF:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too Stony	0.53	Too Stony	0.53	Depth to bedrock	0.54
						Too Stony	0.53
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too Stony	0.53	Too Stony	0.53	Too Stony	0.53
Ud:							
Udipsamments, dredged	90	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.50	Flooding	0.60
		Too sandy	0.50			Slope	0.50
						Too sandy	0.50
Ue:							
Udorthents, smoothed	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.60	Restricted permeability	0.60	Restricted permeability	0.60
						Gravel content	0.14
						Slope	0.13
UnB:							
Unadilla	70	Not limited		Not limited		Very limited	
						Slope	1.00

Table 11.--Recreation, Part I--Continued

Map symbol and soil name	Pct. of map unit	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
UnC:							
Unadilla------------	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
W:							
Water---------------	100	Not rated		Not rated		Not rated	
Wa:							
Wareham-------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
WnA:							
Windsor-------------	80	Not limited		Not limited		Not limited	
WnB:							
Windsor, undulating-	80	Not limited		Not limited		Very limited	
						Slope	1.00
WnC:							
Windsor, rolling----	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
WnD:							
Windsor, hilly------	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
WO:							
Wonsqueak, ponded---	70	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
WrB:							
Woodbridge----------	70	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 12.--Recreation, Part II

(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	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ALA:							
Allagash	80	Not limited		Not limited		Not limited	
ALC:							
Allagash	80	Not limited		Not limited		Somewhat limited	
						Slope	0.04
ALE:							
Allagash	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.08	Slope	1.00
As:							
Allis	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Depth to bedrock	0.84
						Droughty	0.11
BCC:							
Becket, very bouldery	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Too Stony	0.53	Too Stony	0.53	Slope	0.16
BCE:							
Becket, very bouldery	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too Stony	0.53	Slope	1.00
		Too Stony	0.53	Slope	0.01		
BEC:							
Becket, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Too Stony	0.53	Too Stony	0.53	Slope	0.04
Tunbridge, very bouldery	40	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to bedrock	0.54
		Too Stony	0.53	Too Stony	0.53	Slope	0.04
BEE:							
Becket, very bouldery	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too Stony	0.53	Slope	1.00
		Too Stony	0.53	Slope	0.01		
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	1.00	Too Stony	0.53	Depth to bedrock	0.54
		Too Stony	0.53	Slope	0.01		

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
BHC:							
Berkshire, very bouldery	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Too Stony	0.53	Too Stony	0.53	Slope	0.04
BHE:							
Berkshire, very bouldery	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too Stony	0.53	Slope	1.00
		Too Stony	0.53	Slope	0.01		
BLC:							
Berkshire, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Too Stony	0.53	Too Stony	0.53	Slope	0.04
Tunbridge, very bouldery	40	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to bedrock	0.54
		Too Stony	0.53	Too Stony	0.53	Slope	0.04
BLE:							
Berkshire, very bouldery	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too Stony	0.53	Slope	1.00
		Too Stony	0.53	Slope	0.01		
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	1.00	Too Stony	0.53	Depth to bedrock	0.54
		Too Stony	0.53	Slope	0.01		
BmB:							
Bernardston	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
BmC:							
Bernardston	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
						Slope	0.16
BmD:							
Bernardston	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Depth to saturated zone	0.08	Slope	1.00
		Depth to saturated zone	0.08			Depth to saturated zone	0.43
BnB:							
Bernardston	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
BnB:							
Manlius	30	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.90
						Droughty	0.87
						Gravel content	0.01
Nassau	15	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	1.00
						Gravel content	0.08
BnC:							
Bernardston	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Slope	0.63
						Depth to saturated zone	0.43
Manlius	30	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.90
						Droughty	0.87
						Slope	0.63
						Gravel content	0.01
Nassau	15	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	1.00
						Slope	0.63
						Gravel content	0.08
BnD:							
Bernardston	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Depth to saturated zone	0.08	Slope	1.00
		Depth to saturated zone	0.08			Depth to saturated zone	0.43
Manlius	30	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
						Depth to bedrock	0.90
						Droughty	0.87
						Gravel content	0.01
Nassau	15	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Depth to bedrock	1.00
						Slope	1.00
						Droughty	1.00
						Gravel content	0.08
BOC:							
Bice, stony	75	Not limited		Not limited		Somewhat limited	
						Slope	0.04
BOE:							
Bice, stony	75	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.01	Slope	1.00

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
BPC:							
Bice, stony	50	Not limited		Not limited		Somewhat limited	
						Slope	0.04
Woodstock, stony	40	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	0.63
						Slope	0.04
BPE:							
Bice, stony	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.01	Slope	1.00
Woodstock, stony	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.01	Depth to bedrock	1.00
						Slope	1.00
						Droughty	0.63
BtB:							
Broadalbin	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to cemented pan	0.46
						Depth to saturated zone	0.28
BtC:							
Broadalbin	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to cemented pan	0.46
						Depth to saturated zone	0.28
						Slope	0.16
BtD:							
Broadalbin	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Depth to saturated zone	0.01	Slope	1.00
		Depth to saturated zone	0.01			Depth to cemented pan	0.46
						Depth to saturated zone	0.28
BvB:							
Broadalbin	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to cemented pan	0.46
						Depth to saturated zone	0.28
Manlius	30	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.90
						Droughty	0.87
						Gravel content	0.01
Nassau	15	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	1.00
						Gravel content	0.08

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
BvC:							
Broadalbin	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to cemented pan	0.46
						Depth to saturated zone	0.28
						Slope	0.16
Manlius	30	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.90
						Droughty	0.87
						Slope	0.63
						Gravel content	0.01
Nassau	15	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	1.00
						Slope	0.63
						Gravel content	0.08
BvD:							
Broadalbin	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.18	Depth to saturated zone	0.01	Slope	1.00
		Depth to saturated zone	0.01			Depth to cemented pan	0.46
						Depth to saturated zone	0.28
Manlius	30	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
						Depth to bedrock	0.90
						Droughty	0.87
						Gravel content	0.01
Nassau	15	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Depth to bedrock	1.00
						Slope	1.00
						Droughty	1.00
						Gravel content	0.08
BxB:							
Burdett	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
CcB:							
Charlton	80	Not limited		Not limited		Not limited	
CcC:							
Charlton	80	Not limited		Not limited		Somewhat limited	
						Slope	0.63
CcD:							
Charlton	80	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
CeB:							
Chatfield, undulating	50	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.90
						Droughty	0.06
Hollis, undulating	30	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	0.79
CeC:							
Chatfield, rolling	50	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to bedrock	0.90
						Slope	0.63
						Droughty	0.06
Hollis, rolling	30	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	0.79
						Slope	0.63
CfD:							
Chatfield, hilly	50	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	0.50			Depth to bedrock	0.90
						Droughty	0.06
Hollis, hilly	30	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Depth to bedrock	1.00
						Slope	1.00
						Droughty	0.79
Cg:							
Cheektowaga	70	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
						Droughty	0.89
ChB:							
Chenango, loamy substratum	85	Not limited		Not limited		Not limited	
ChC:							
Chenango, loamy subtratum	85	Not limited		Not limited		Somewhat limited	
						Slope	0.63
ClA:							
Claverack	70	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.12	Too sandy	0.12	Droughty	1.00
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
ClB:							
Claverack-----------	70	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.12	Too sandy	0.12	Droughty	1.00
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
CoC:							
Colton--------------	90	Not limited		Not limited		Very limited	
						Droughty	0.99
						Slope	0.04
CoE:							
Colton--------------	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.01	Slope	1.00
						Droughty	0.99
Cs:							
Cosad---------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.93
DeA:							
Deerfield-----------	75	Not limited		Not limited		Somewhat limited	
						Droughty	0.67
						Depth to saturated zone	0.03
DeB:							
Deerfield, undulating---------	75	Not limited		Not limited		Somewhat limited	
						Droughty	0.67
						Depth to saturated zone	0.03
ElB:							
Elmridge------------	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Droughty	0.25
FaB:							
Farmington, rocky---	75	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	0.99
FcC:							
Farmington, very rocky--------------	70	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	0.99
						Slope	0.04

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Fl:							
Fluvaquents, frequently flooded	60	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
						Content of large stones	0.01
FU:							
Fluvaquents, flooded	55	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
						Content of large stones	0.01
Udipsamments	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.50	Too sandy	0.50	Droughty	0.92
GaB:							
Galway	65	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.46
						Depth to saturated zone	0.02
GaC:							
Galway	70	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Depth to bedrock	0.46
						Depth to saturated zone	0.02
HcA:							
Hinckley	80	Not limited		Not limited		Somewhat limited	
						Droughty	0.98
						Gravel content	0.01
HcB:							
Hinckley, undulating	80	Not limited		Not limited		Somewhat limited	
						Droughty	0.98
						Gravel content	0.01
HcC:							
Hinckley, rolling	80	Not limited		Not limited		Somewhat limited	
						Droughty	0.98
						Slope	0.63
						Gravel content	0.01
HcD:							
Hinckley, hilly	80	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
						Droughty	0.98
						Gravel content	0.01

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
HoA:							
Hoosic--------------	70	Not limited		Not limited		Very limited	
						Droughty	1.00
						Gravel content	0.24
HoB:							
Hoosic, undulating--	70	Not limited		Not limited		Very limited	
						Droughty	1.00
						Gravel content	0.24
HoC:							
Hoosic, rolling-----	70	Not limited		Not limited		Very limited	
						Droughty	1.00
						Slope	0.63
						Gravel content	0.24
HuB:							
Hudson--------------	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
HuC:							
Hudson--------------	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Slope	0.63
						Depth to saturated zone	0.43
HuD:							
Hudson, hilly-------	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Depth to saturated zone	0.08	Slope	1.00
		Depth to saturated zone	0.08			Depth to saturated zone	0.43
HuE:							
Hudson--------------	70	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
In:							
Ilion---------------	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Lm:							
Limerick------------	50	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
Saco----------------	40	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

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
LY:							
Lyme, very stony----	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too Stony	0.53	Too Stony	0.53		
Ma:							
Madalin------------	80	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
MnB:							
Manlius, undulating-	50	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.90
						Droughty	0.87
						Gravel content	0.01
Nassau--------------	30	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	1.00
						Gravel content	0.08
MnC:							
Manlius, rolling----	50	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.90
						Droughty	0.87
						Slope	0.63
						Gravel content	0.01
Nassau--------------	30	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	1.00
						Slope	0.63
						Gravel content	0.08
MnD:							
Manlius, hilly------	50	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
						Droughty	0.87
						Depth to bedrock	0.46
						Gravel content	0.01
Nassau--------------	30	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Depth to bedrock	1.00
						Slope	1.00
						Droughty	1.00
						Gravel content	0.08
Ms:							
Massena------------	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
MvA:							
Mosherville---------	75	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.78	Depth to saturated zone	0.78	Depth to cemented pan	1.00
						Depth to saturated zone	0.90
						Droughty	0.74
MvB:							
Mosherville---------	75	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.78	Depth to saturated zone	0.78	Depth to cemented pan	1.00
						Depth to saturated zone	0.90
						Droughty	0.74
MxB:							
Mosherville---------	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.78	Depth to saturated zone	0.78	Depth to cemented pan	1.00
						Depth to saturated zone	0.90
						Droughty	0.74
Hornell, undulating-	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Depth to bedrock	0.90
						Droughty	0.39
						Gravel content	0.08
NaC:							
Nassau, rolling-----	60	Not limited		Not limited		Very limited	
						Depth to bedrock	1.00
						Droughty	1.00
						Slope	0.63
						Gravel content	0.08
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
NaD:							
Nassau, hilly-------	60	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Depth to bedrock	1.00
						Slope	1.00
						Droughty	1.00
						Gravel content	0.08
Rock Outcrop--------	20	Not rated		Not rated		Not rated	

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Ne:							
Newstead	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Depth to bedrock	0.95
						Droughty	0.61
NuB:							
Nunda	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
NuC:							
Nunda	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Slope	0.63
OaA:							
Oakville	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.12	Too sandy	0.12	Droughty	0.22
OaB:							
Oakville, undulating	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.12	Too sandy	0.12	Droughty	0.22
OaC:							
Oakville, rolling	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.12	Too sandy	0.12	Slope	0.63
						Droughty	0.22
OaD:							
Oakville, hilly	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Too sandy	0.12	Slope	1.00
		Too sandy	0.12			Droughty	0.22
OeE:							
Oakville	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
		Too sandy	0.12	Too sandy	0.12	Droughty	0.22
Windsor	40	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	1.00	Slope	0.22	Droughty	0.01
Pm:							
Palms	70	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	Content of organic matter	1.00
						Depth to saturated zone	1.00

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
Pp:							
Palms, ponded	85	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	Content of organic matter	1.00
						Depth to saturated zone	1.00
PtB:							
Paxton	70	Not limited		Not limited		Somewhat limited	
						Gravel content	0.06
						Depth to saturated zone	0.01
PtC:							
Paxton	70	Not limited		Not limited		Somewhat limited	
						Slope	0.63
						Gravel content	0.06
						Depth to saturated zone	0.01
Pu:							
Pits, Quarry	80	Not rated		Not rated		Not rated	
Pv:							
Pits, Sand And Gravel	80	Not rated		Not rated		Not rated	
PwA:							
Pittstown	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
PwB:							
Pittstown	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
Ra:							
Raynham	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
RhA:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RhB:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Sa:							
Scarboro	70	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	Content of organic matter	1.00
						Depth to saturated zone	1.00
SCB:							
Schroon, stony	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
SeA:							
Scio	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
SeB:							
Scio	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
Sh:							
Shaker	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
SKB:							
Skerry, very stony	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Too Stony	0.53	Too Stony	0.53	Depth to saturated zone	0.68
		Depth to saturated zone	0.32	Depth to saturated zone	0.32		
Sn:							
Sun	70	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
StA:							
Sutton	70	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.19
StB:							
Sutton	70	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.19
Te:							
Teel	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Flooding	0.60

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Tg:							
Tioga	80	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
TNC:							
Tunbridge, very bouldery	50	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to bedrock	0.54
		Too Stony	0.53	Too Stony	0.53	Slope	0.04
Lyman, very bouldery	30	Somewhat limited		Somewhat limited		Very limited	
		Too Stony	0.53	Too Stony	0.53	Depth to bedrock	1.00
						Droughty	0.81
						Slope	0.04
TNE:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	1.00	Too Stony	0.53	Depth to bedrock	0.54
		Too Stony	0.53	Slope	0.01		
Lyman, very bouldery	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too Stony	0.53	Depth to bedrock	1.00
		Too Stony	0.53	Slope	0.01	Slope	1.00
						Droughty	0.81
TNF:							
Tunbridge, very bouldery	50	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 bedrock	0.54
		Too Stony	0.53	Too Stony	0.53		
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Too Stony	0.53	Too Stony	0.53	Slope	1.00
						Droughty	0.81
Ud:							
Udipsamments, dredged	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.50	Too sandy	0.50	Droughty	0.92
						Flooding	0.60
Ue:							
Udorthents, smoothed	80	Not limited		Not limited		Somewhat limited	
						Droughty	0.05
UnB:							
Unadilla	70	Not limited		Not limited		Not limited	
UnC:							
Unadilla	70	Not limited		Not limited		Somewhat limited	
						Slope	0.63
W:							
Water	100	Not rated		Not rated		Not rated	

Table 12.--Recreation, Part II--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Wa:							
Wareham	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Droughty	0.05
WnA:							
Windsor	80	Not limited		Not limited		Somewhat limited	
						Droughty	0.01
WnB:							
Windsor, undulating	80	Not limited		Not limited		Somewhat limited	
						Droughty	0.01
WnC:							
Windsor, rolling	75	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.63
						Droughty	0.01
WnD:							
Windsor, hilly	75	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	0.50			Droughty	0.01
WO:							
Wonsqueak, ponded	70	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	Content of organic matter	1.00
						Depth to saturated zone	1.00
WrB:							
Woodbridge	70	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.19
						Droughty	0.12

Table 13.--Wildlife Habitat

(See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and 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
ALA:										
Allagash	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
ALC:										
Allagash	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
ALE:										
Allagash	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
As:										
Allis	Poor	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair
BCC:										
Becket, very bouldery	Very poor	Poor	Good	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
BCE:										
Becket, very bouldery	Very poor	Poor	Good	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
BEC:										
Becket, very bouldery	Very poor	Poor	Good	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
Tunbridge, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
BEE:										
Becket, very bouldery	Very poor	Poor	Good	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
Tunbridge, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
BHC:										
Berkshire, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
BHE:										
Berkshire, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
BLC:										
Berkshire, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Tunbridge, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
BLE:										
Berkshire, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Tunbridge, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor

Table 13.--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
BmB:										
Bernardston	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
BmC:										
Bernardston	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
BmD:										
Bernardston	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
BnB:										
Bernardston	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Manlius	Fair	Good	Good	Fair	Fair	Poor	Very poor	Good	Fair	Very poor
Nassau	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
BnC:										
Bernardston	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Manlius	Fair	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Nassau	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
BnD:										
Bernardston	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Manlius	Poor	Fair	Good	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Nassau	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
BOC:										
Bice, stony	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
BOE:										
Bice, stony	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
BPC:										
Bice, stony	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Woodstock, stony	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor

Table 13.--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
BPE:										
Bice, stony	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Woodstock, stony	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
BtB:										
Broadalbin	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
BtC:										
Broadalbin	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
BtD:										
Broadalbin	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
BvB:										
Broadalbin	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Manlius	Fair	Good	Good	Fair	Fair	Poor	Very poor	Good	Fair	Very poor
Nassau	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
BvC:										
Broadalbin	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Manlius	Fair	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Nassau	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
BvD:										
Broadalbin	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Manlius	Poor	Fair	Good	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Nassau	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
BxB:										
Burdett	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
CcB:										
Charlton	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
CcC:										
Charlton	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 13.--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
CcD:										
Charlton----------------	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
CeB:										
Chatfield, undulating---	Fair	Good	Good	Fair	Fair	Poor	Very poor	Good	Fair	Very poor
Hollis, undulating------	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
CeC:										
Chatfield, rolling------	Fair	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Hollis, rolling---------	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
CfD:										
Chatfield, hilly--------	Poor	Fair	Good	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Hollis, hilly-----------	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Cg:										
Cheektowaga-------------	Very poor	Poor	Poor	Poor	Poor	Good	Good	Very poor	Poor	Good
ChB:										
Chenango, loamy substratum-------------	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
ChC:										
Chenango, loamy subtratum--------------	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
ClA:										
Claverack---------------	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Poor
ClB:										
Claverack---------------	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Poor
COC:										
Colton------------------	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
COE:										
Colton------------------	Very poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Cs:										
Cosad-------------------	Fair	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
DeA:										
Deerfield---------------	Poor	Fair	Fair	Poor	Poor	Poor	Poor	Fair	Poor	Poor

Table 13.--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
DeB:										
Deerfield, undulating	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Fair	Poor	Very poor
ElB:										
Elmridge	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
FaB:										
Farmington, rocky	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
FcC:										
Farmington, very rocky	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Fl:										
Fluvaquents, frequently flooded	Very poor	Very poor	Poor	Poor	Poor	Good	Good	Very poor	Poor	Good
FU:										
Fluvaquents, flooded	Very poor	Very poor	Poor	Poor	Poor	Good	Good	Very poor	Poor	Good
Udipsamments	Very poor	Very poor	Poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
GaB:										
Galway	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
GaC:										
Galway	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
HcA:										
Hinckley	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
HcB:										
Hinckley, undulating	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
HcC:										
Hinckley, rolling	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
HcD:										
Hinckley, hilly	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
HoA:										
Hoosic	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
HoB:										
Hoosic, undulating	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor

Table 13.--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
HoC:										
Hoosic, rolling	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
HuB:										
Hudson	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
HuC:										
Hudson	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
HuD:										
Hudson, hilly	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
HuE:										
Hudson	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
In:										
Ilion	Poor	Fair	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
Lm:										
Limerick	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
Saco	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
LY:										
Lyme, very stony	Very poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good
Ma:										
Madalin	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
MnB:										
Manlius, undulating	Fair	Good	Good	Fair	Fair	Poor	Very poor	Good	Fair	Very poor
Nassau	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
MnC:										
Manlius, rolling	Fair	Good	Good	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor
Nassau	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
MnD:										
Manlius, hilly	Poor	Fair	Good	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Nassau	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Ms:										
Massena	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
MvA:										
Mosherville	Fair	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair

Table 13.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for --		
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life
MvB:										
Mosherville	Fair	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Very poor
MxB:										
Mosherville	Fair	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Very poor
Hornell, undulating	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
NaC:										
Nassau, rolling	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Rock Outcrop	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
NaD:										
Nassau, hilly	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Rock Outcrop	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
Ne:										
Newstead	Poor	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair
NuB:										
Nunda	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
NuC:										
Nunda	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
OaA:										
Oakville	Poor	Fair	Fair	Good	Good	Poor	Very poor	Fair	Good	Very poor
OaB:										
Oakville, undulating	Poor	Fair	Fair	Good	Good	Poor	Very poor	Fair	Good	Very poor
OaC:										
Oakville, rolling	Poor	Fair	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor
OaD:										
Oakville, hilly	Poor	Fair	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor
OeE:										
Oakville	Very poor	Poor	Fair	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Windsor	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Pm:										
Palms	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good

Table 13.--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
Pp:										
Palms, ponded	Poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
PtB:										
Paxton	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
PtC:										
Paxton	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Pu:										
Pits, Quarry	---	---	---	---	---	---	---	---	---	---
Pv:										
Pits, Sand And Gravel	---	---	---	---	---	---	---	---	---	---
PwA:										
Pittstown	Fair	Good	Good	Fair	Fair	Poor	Poor	Good	Fair	Poor
PwB:										
Pittstown	Fair	Good	Good	Fair	Fair	Poor	Very poor	Good	Fair	Very poor
Ra:										
Raynham	Poor	Poor	Fair	Fair	Fair	Good	Fair	Poor	Fair	Fair
RhA:										
Rhinebeck	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
RhB:										
Rhinebeck	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Sa:										
Scarboro	Very poor	Poor	Poor	Poor	Poor	Good	Fair	Poor	Poor	Fair
SCB:										
Schroon, stony	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
SeA:										
Scio	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
SeB:										
Scio	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Sh:										
Shaker	Poor	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair
SKB:										
Skerry, very stony	Very poor	Poor	Good	Fair	Fair	Poor	Very poor	Poor	Fair	Very poor
Sn:										
Sun	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good

Table 13.--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
StA:										
Sutton	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
StB:										
Sutton	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Te:										
Teel	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Tg:										
Tioga	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
TNC:										
Tunbridge, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Lyman, very bouldery	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
TNE:										
Tunbridge, very bouldery	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Lyman, very bouldery	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
TNF:										
Tunbridge, very bouldery	Very poor	Very poor	Good	Good	Good	Very poor	Very poor	Poor	Fair	Very poor
Lyman, very bouldery	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Ud:										
Udipsamments, dredged	Very poor	Very poor	Poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
Ue:										
Udorthents, smoothed	Very poor	Very poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor
UnB:										
Unadilla	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
UnC:										
Unadilla	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
W:										
Water	---	---	---	---	---	---	---	---	---	---
Wa:										
Wareham	Poor	Fair	Fair	Poor	Poor	Fair	Fair	Fair	Poor	Fair
WnA:										
Windsor	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor

Table 13.--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
WnB: Windsor, undulating	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
WnC: Windsor, rolling	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
WnD: Windsor, hilly	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
WO: Wonsqueak, ponded	Very poor	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good
WrB: Woodbridge	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor

Table 14.--Building Site Development, Part I

(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	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
ALA:							
Allagash	80	Not limited		Not limited		Not limited	
ALC:							
Allagash	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
ALE:							
Allagash	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
As:							
Allis	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Depth to soft bedrock	0.84	Shrink-swell	0.50
				Shrink-swell	0.50		
BCC:							
Becket, very bouldery	70	Somewhat limited		Very limited		Very limited	
		Slope	0.16	Depth to saturated zone	1.00	Slope	1.00
				Slope	0.16		
BCE:							
Becket, very bouldery	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to saturated zone	1.00		
BEC:							
Becket, very bouldery	40	Somewhat limited		Very limited		Very limited	
		Slope	0.04	Depth to saturated zone	1.00	Slope	1.00
				Slope	0.04		
Tunbridge, very bouldery	40	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.54	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.54
BEE:							
Becket, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to saturated zone	1.00		

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
BEE:							
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Slope	1.00	Depth to hard bedrock	0.54
BHC:							
Berkshire, very bouldery	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
BHE:							
Berkshire, very bouldery	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
BLC:							
Berkshire, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Tunbridge, very bouldery	40	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.54	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.54
BLE:							
Berkshire, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Slope	1.00	Depth to hard bedrock	0.54
BmB:							
Bernardston	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
						Slope	0.48
BmC:							
Bernardston	85	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.82

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
BmD:							
Bernardston---------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.82	Slope	1.00	Depth to saturated zone	0.82
BnB:							
Bernardston---------	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
						Slope	0.48
Manlius-------------	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to hard bedrock	0.90
						Slope	0.48
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
						Slope	0.48
BnC:							
Bernardston---------	50	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.82
Manlius-------------	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to hard bedrock	0.90
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
BnD:							
Bernardston---------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.82	Slope	1.00	Depth to saturated zone	0.82
Manlius-------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.90	Slope	1.00	Depth to hard bedrock	0.90
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to hard bedrock	1.00

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
BOC:							
Bice, stony	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
BOE:							
Bice, stony	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
BPC:							
Bice, stony	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Woodstock, stony	40	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
BPE:							
Bice, stony	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Woodstock, stony	40	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to hard bedrock	1.00
BtB:							
Broadalbin	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.62	Depth to saturated zone	1.00	Depth to saturated zone	0.62
				Depth to thin cemented pan	0.46	Slope	0.48
BtC:							
Broadalbin	70	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.62	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Depth to thin cemented pan	0.46	Depth to saturated zone	0.62
				Slope	0.16		
BtD:							
Broadalbin	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.62	Depth to saturated zone	1.00	Depth to saturated zone	0.62
				Depth to thin cemented pan	0.46		
Broadalbin	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.62	Depth to saturated zone	1.00	Depth to saturated zone	0.62
				Depth to thin cemented pan	0.46	Slope	0.48

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
BtD:							
Manlius	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to hard bedrock	0.90
						Slope	0.48
Nassau	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
						Slope	0.48
BvC:							
Broadalbin	50	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.62	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Depth to thin cemented pan	0.46	Depth to saturated zone	0.62
				Slope	0.16		
Manlius	30	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to hard bedrock	0.90
Nassau	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
BvD:							
Broadalbin	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.62	Depth to saturated zone	1.00	Depth to saturated zone	0.62
				Depth to thin cemented pan	0.46		
Manlius	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.90	Slope	1.00	Depth to hard bedrock	0.90
Nassau	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to hard bedrock	1.00
BxB:							
Burdett	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.48
CcB:							
Charlton	80	Not limited		Not limited		Somewhat limited	
						Slope	0.48

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
CcC:							
Charlton	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
CcD:							
Charlton	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
CeB:							
Chatfield, undulating	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to hard bedrock	0.90
						Slope	0.48
Hollis, undulating	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
						Slope	0.48
CeC:							
Chatfield, rolling	50	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to hard bedrock	0.90
Hollis, rolling	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
CfD:							
Chatfield, hilly	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.90	Slope	1.00	Depth to hard bedrock	0.90
Hollis, hilly	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to hard bedrock	1.00
Cg:							
Cheektowaga	70	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
ChB:							
Chenango, loamy substratum	85	Not limited		Not limited		Somewhat limited	
						Slope	0.48

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
ChC:							
Chenango, loamy subtratum	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
ClA:							
Claverack	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
ClB:							
Claverack	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
						Slope	0.48
COC:							
Colton	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
COE:							
Colton	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Cs:							
Cosad	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
DeA:							
Deerfield	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	1.00	Depth to saturated zone	0.08
DeB:							
Deerfield, undulating	75	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	1.00	Slope	0.48
						Depth to saturated zone	0.08
ElB:							
Elmridge	70	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.48
FaB:							
Farmington, rocky	75	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
						Slope	0.48
FcC:							
Farmington, very rocky	70	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
Fl:							
Fluvaquents, frequently flooded-	60	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
FU:							
Fluvaquents, flooded	55	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
Udipsamments--------	25	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
GaB:							
Galway--------------	65	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.46	Depth to hard bedrock	1.00	Slope	0.48
		Depth to saturated zone	0.04	Depth to saturated zone	1.00	Depth to hard bedrock	0.46
						Depth to saturated zone	0.04
GaC:							
Galway--------------	70	Somewhat limited		Very limited		Very limited	
		Slope	0.63	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.46	Depth to saturated zone	1.00	Depth to hard bedrock	0.46
		Depth to saturated zone	0.04	Slope	0.63	Depth to saturated zone	0.04
HcA:							
Hinckley------------	80	Not limited		Not limited		Not limited	
HcB:							
Hinckley, undulating	80	Not limited		Not limited		Somewhat limited	
						Slope	0.48
HcC:							
Hinckley, rolling---	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
HcD:							
Hinckley, hilly-----	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
HoA:							
Hoosic--------------	70	Not limited		Not limited		Not limited	
HoB:							
Hoosic, undulating--	70	Not limited		Not limited		Somewhat limited	
						Slope	0.48

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
HoC:							
Hoosic, rolling	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
HuB:							
Hudson	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
						Slope	0.48
HuC:							
Hudson	70	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.82
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
HuD:							
Hudson, hilly	70	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.82	Slope	1.00	Depth to saturated zone	0.82
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
HuE:							
Hudson	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
In:							
Ilion	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Lm:							
Limerick	50	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
Saco	40	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
LY:							
Lyme, very stony	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
Ma:							
Madalin-------------	80	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
MnB:							
Manlius, undulating-	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to hard bedrock	0.90
						Slope	0.48
Nassau--------------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
						Slope	0.48
MnC:							
Manlius, rolling----	50	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to hard bedrock	0.90
Nassau--------------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
MnD:							
Manlius, hilly------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.46	Slope	1.00	Depth to hard bedrock	0.46
Nassau--------------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to hard bedrock	1.00
Ms:							
Massena-------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
MvA:							
Mosherville---------	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to saturated zone	1.00	Depth to thick cemented pan	1.00
		Depth to saturated zone	1.00	Depth to thick cemented pan	1.00	Depth to saturated zone	1.00

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
MvB:							
Mosherville---------	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to saturated zone	1.00	Depth to thick cemented pan	1.00
		Depth to saturated zone	1.00	Depth to thick cemented pan	1.00	Depth to saturated zone	1.00
						Slope	0.48
MxB:							
Mosherville---------	50	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to saturated zone	1.00	Depth to thick cemented pan	1.00
		Depth to saturated zone	1.00	Depth to thick cemented pan	1.00	Depth to saturated zone	1.00
						Slope	0.48
Hornell, undulating-	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to hard bedrock	0.90
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
						Slope	0.48
NaC:							
Nassau, rolling-----	60	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
NaD:							
Nassau, hilly-------	60	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to hard bedrock	1.00
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
Ne:							
Newstead------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to hard bedrock	0.95	Depth to hard bedrock	1.00	Depth to hard bedrock	0.95
NuB:							
Nunda---------------	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.48

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
NuC:							
Nunda	70	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	1.00
OaA:							
Oakville	70	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.95		
OaB:							
Oakville, undulating	70	Not limited		Not limited		Somewhat limited	
						Slope	0.48
OaC:							
Oakville, rolling	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
OaD:							
Oakville, hilly	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
OeE:							
Oakville	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Windsor	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Pm:							
Palms	70	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00			Content of organic matter	1.00
Pp:							
Palms, ponded	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00			Content of organic matter	1.00
PtB:							
Paxton	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Slope	0.48
						Depth to saturated zone	0.01

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
PtC:							
Paxton	70	Somewhat limited		Very limited		Very limited	
		Slope	0.63	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.01	Slope	0.63	Depth to saturated zone	0.01
Pu:							
Pits, Quarry	80	Not rated		Not rated		Not rated	
Pv:							
Pits, Sand And Gravel	80	Not rated		Not rated		Not rated	
PwA:							
Pittstown	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
PwB:							
Pittstown	80	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.48
Ra:							
Raynham	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RhA:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
RhB:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
						Slope	0.48
Sa:							
Scarboro	70	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
SCB:							
Schroon, stony	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
						Slope	0.01

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
SeA:							
Scio	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
SeB:							
Scio	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
						Slope	0.48
Sh:							
Shaker	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Shrink-swell	0.50		
SKB:							
Skerry, very stony	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	1.00	Depth to saturated zone	0.82
						Slope	0.01
Sn:							
Sun	70	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
StA:							
Sutton	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	1.00	Depth to saturated zone	0.44
StB:							
Sutton	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	1.00	Slope	0.48
						Depth to saturated zone	0.44
Te:							
Teel	70	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
Tg:							
Tioga	80	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.35		
TNC:							
Tunbridge, very bouldery	50	Somewhat limited		Very limited		Very limited	
		Depth to hard bedrock	0.54	Depth to hard bedrock	1.00	Slope	1.00
		Slope	0.04	Slope	0.04	Depth to hard bedrock	0.54

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
TNC:							
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
TNE:							
Tunbridge, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Slope	1.00	Depth to hard bedrock	0.54
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to hard bedrock	1.00
TNF:							
Tunbridge, very bouldery-----------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Depth to hard bedrock	1.00	Depth to hard bedrock	0.54
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Ud:							
Udipsamments, dredged------------	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
						Slope	0.01
Ue:							
Udorthents, smoothed	80	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.35		
UnB:							
Unadilla------------	70	Not limited		Not limited		Somewhat limited	
						Slope	0.48
UnC:							
Unadilla------------	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
W:							
Water---------------	100	Not rated		Not rated		Not rated	
Wa:							
Wareham-------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 14.--Building Site Development, Part I--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
WnA:							
Windsor-------------	80	Not limited		Not limited		Not limited	
WnB:							
Windsor, undulating-	80	Not limited		Not limited		Somewhat limited	
						Slope	0.48
WnC:							
Windsor, rolling----	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
WnD:							
Windsor, hilly------	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
WO:							
Wonsqueak, ponded---	70	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of organic matter	1.00			Content of organic matter	1.00
WrB:							
Woodbridge----------	70	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	1.00	Slope	0.48
						Depth to saturated zone	0.44

Table 15.--Building Site Development, Part II

(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	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ALA:							
Allagash------------	80	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
ALC:							
Allagash------------	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.04
		Slope	0.04	Slope	0.04		
ALE:							
Allagash------------	80	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00		
As:							
Allis---------------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.50	Depth to soft bedrock	0.84	Depth to bedrock	0.84
		Frost action	0.50	Too clayey	0.12	Droughty	0.11
				Cutbanks cave	0.10		
BCC:							
Becket, very bouldery-----------	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Slope	0.16
		Slope	0.16	Slope	0.16		
				Cutbanks cave	0.10		
BCE:							
Becket, very bouldery-----------	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Depth to saturated zone	1.00		
				Cutbanks cave	0.10		
BEC:							
Becket, very bouldery-----------	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Slope	0.04
		Slope	0.04	Cutbanks cave	0.10		
				Slope	0.04		
Tunbridge, very bouldery-----------	40	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.54	Depth to hard bedrock	1.00	Depth to bedrock	0.54
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.04
		Slope	0.04	Slope	0.04		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
BEE:							
Becket, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Depth to saturated zone	1.00		
				Cutbanks cave	0.10		
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Slope	1.00	Depth to bedrock	0.54
		Frost action	0.50	Cutbanks cave	0.10		
BHC:							
Berkshire, very bouldery	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.04
		Slope	0.04	Slope	0.04		
BHE:							
Berkshire, very bouldery	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		
BLC:							
Berkshire, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.04
		Slope	0.04	Slope	0.04		
Tunbridge, very bouldery	40	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.54	Depth to hard bedrock	1.00	Depth to bedrock	0.54
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.04
		Slope	0.04	Slope	0.04		
BLE:							
Berkshire, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10		
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Slope	1.00	Depth to bedrock	0.54
		Frost action	0.50	Cutbanks cave	0.10		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
BmB:							
Bernardston---------	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Cutbanks cave	1.00		
				Depth to dense layer	0.50		
BmC:							
Bernardston---------	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Depth to dense layer	0.50	Slope	0.16
		Slope	0.16	Slope	0.16		
				Cutbanks cave	0.10		
BmD:							
Bernardston---------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Depth to dense layer	0.50		
				Cutbanks cave	0.10		
BnB:							
Bernardston---------	50	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Depth to dense layer	0.50		
				Cutbanks cave	0.10		
Manlius-------------	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Frost action	0.50	Depth to dense layer	0.50	Droughty	0.87
				Cutbanks cave	0.10	Gravel content	0.01
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
						Gravel content	0.08
BnC:							
Bernardston---------	50	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Depth to saturated zone	1.00	Slope	0.63
		Frost action	0.50	Slope	0.63	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Depth to dense layer	0.50		
				Cutbanks cave	0.10		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
BnC:							
Manlius-------------	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Slope	0.63	Slope	0.63	Droughty	0.87
		Frost action	0.50	Depth to dense layer	0.50	Slope	0.63
				Cutbanks cave	0.10	Gravel content	0.01
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Droughty	1.00
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.63
						Gravel content	0.08
BnD:							
Bernardston---------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Depth to dense layer	0.50		
				Cutbanks cave	0.10		
Manlius-------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.90	Slope	1.00	Depth to bedrock	0.90
		Frost action	0.50	Depth to dense layer	0.50	Droughty	0.87
				Cutbanks cave	0.10	Gravel content	0.01
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
						Gravel content	0.08
BOC:							
Bice, stony---------	75	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Slope	0.04
				Slope	0.04		
BOE:							
Bice, stony---------	75	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00		
BPC:							
Bice, stony---------	50	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	1.00	Slope	0.04
				Slope	0.04		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
BPC:							
Woodstock, stony	40	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Cutbanks cave	0.10	Droughty	0.63
				Slope	0.04	Slope	0.04
BPE:							
Bice, stony	50	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00		
Woodstock, stony	40	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10	Droughty	0.63
BtB:							
Broadalbin	70	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.46
		Depth to saturated zone	0.28	Depth to dense layer	0.50	Depth to saturated zone	0.28
				Depth to thin cemented pan	0.46		
				Cutbanks cave	0.10		
BtC:							
Broadalbin	70	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.46
		Depth to saturated zone	0.28	Depth to dense layer	0.50	Depth to saturated zone	0.28
		Slope	0.16	Depth to thin cemented pan	0.46	Slope	0.16
				Slope	0.16		
				Cutbanks cave	0.10		
BtD:							
Broadalbin	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.46
		Depth to saturated zone	0.28	Depth to dense layer	0.50	Depth to saturated zone	0.28
				Depth to thin cemented pan	0.46		
				Cutbanks cave	0.10		
BvB:							
Broadalbin	50	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.46
		Depth to saturated zone	0.28	Depth to dense layer	0.50	Depth to saturated zone	0.28
				Depth to thin cemented pan	0.46		
				Cutbanks cave	0.10		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
BvB:							
Manlius	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Frost action	0.50	Depth to dense layer	0.50	Droughty	0.87
				Cutbanks cave	0.10	Gravel content	0.01
Nassau	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
						Gravel content	0.08
BvC:							
Broadalbin	50	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.46
		Depth to saturated zone	0.28	Depth to dense layer	0.50	Depth to saturated zone	0.28
		Slope	0.16	Depth to thin cemented pan	0.46	Slope	0.16
				Slope	0.16		
				Cutbanks cave	0.10		
Manlius	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Slope	0.63	Slope	0.63	Droughty	0.87
		Frost action	0.50	Depth to dense layer	0.50	Slope	0.63
				Cutbanks cave	0.10	Gravel content	0.01
Nassau	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Droughty	1.00
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.63
						Gravel content	0.08
BvD:							
Broadalbin	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.46
		Depth to saturated zone	0.28	Depth to dense layer	0.50	Depth to saturated zone	0.28
				Depth to thin cemented pan	0.46		
				Cutbanks cave	0.10		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
BvD:							
Manlius-------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.90	Slope	1.00	Depth to bedrock	0.90
		Frost action	0.50	Depth to dense layer	0.50	Droughty	0.87
				Cutbanks cave	0.10	Gravel content	0.01
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
						Gravel content	0.08
BxB:							
Burdett-------------	75	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
CcB:							
Charlton------------	80	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
CcC:							
Charlton------------	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
				Slope	0.63		
CcD:							
Charlton------------	80	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00		
CeB:							
Chatfield, undulating---------	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.06
Hollis, undulating--	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.79
CeC:							
Chatfield, rolling--	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Slope	0.63	Slope	0.63	Slope	0.63
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.06

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
CeC:							
Hollis, rolling-----	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Droughty	0.79
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.63
CfD:							
Chatfield, hilly----	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.90	Slope	1.00	Depth to bedrock	0.90
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.06
Hollis, hilly-------	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.79
Cg:							
Cheektowaga---------	70	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.89
				Too clayey	0.12		
ChB:							
Chenango, loamy substratum---------	85	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
ChC:							
Chenango, loamy subtratum----------	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Slope	0.63		
ClA:							
Claverack-----------	70	Somewhat limited		Very limited		Very limited	
		Frost action	0.50	Depth to saturated zone	1.00	Droughty	1.00
		Depth to saturated zone	0.43	Cutbanks cave	1.00	Depth to saturated zone	0.43
ClB:							
Claverack-----------	70	Somewhat limited		Very limited		Very limited	
		Frost action	0.50	Depth to saturated zone	1.00	Droughty	1.00
		Depth to saturated zone	0.43	Cutbanks cave	1.00	Depth to saturated zone	0.43

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
COC:							
Colton--------------	90	Somewhat limited		Very limited		Very limited	
		Slope	0.04	Cutbanks cave	1.00	Droughty	0.99
				Slope	0.04	Slope	0.04
COE:							
Colton--------------	90	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.99
Cs:							
Cosad---------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.93
				Too clayey	0.12		
DeA:							
Deerfield-----------	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.67
		Depth to saturated zone	0.03	Depth to saturated zone	1.00	Depth to saturated zone	0.03
DeB:							
Deerfield, undulating---------	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.67
		Depth to saturated zone	0.03	Depth to saturated zone	1.00	Depth to saturated zone	0.03
ElB:							
Elmridge------------	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Too clayey	0.12	Droughty	0.25
				Cutbanks cave	0.10		
FaB:							
Farmington, rocky---	75	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.99
FcC:							
Farmington, very rocky--------------	70	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.99
		Slope	0.04	Slope	0.04	Slope	0.04

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Fl:							
Fluvaquents, frequently flooded	60	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	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80	Content of large stones	0.01
FU:							
Fluvaquents, flooded	55	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	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80	Content of large stones	0.01
Udipsamments	25	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Cutbanks cave	1.00	Droughty	0.92
GaB:							
Galway	65	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	1.00	Depth to bedrock	0.46
		Depth to hard bedrock	0.46	Depth to saturated zone	1.00	Depth to saturated zone	0.02
		Depth to saturated zone	0.02	Cutbanks cave	0.10		
GaC:							
Galway	70	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Depth to hard bedrock	1.00	Slope	0.63
		Frost action	0.50	Depth to saturated zone	1.00	Depth to bedrock	0.46
		Depth to hard bedrock	0.46	Slope	0.63	Depth to saturated zone	0.02
		Depth to saturated zone	0.02	Cutbanks cave	0.10		
HcA:							
Hinckley	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.98
						Gravel content	0.01
HcB:							
Hinckley, undulating	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.98
						Gravel content	0.01
HcC:							
Hinckley, rolling	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Droughty	0.98
				Slope	0.63	Slope	0.63
						Gravel content	0.01

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
HcD:							
Hinckley, hilly-----	80	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.98
						Gravel content	0.01
HoA:							
Hoosic--------------	70	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
						Gravel content	0.24
HoB:							
Hoosic, undulating--	70	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
						Gravel content	0.24
HoC:							
Hoosic, rolling-----	70	Somewhat limited		Very limited		Very limited	
		Slope	0.63	Cutbanks cave	1.00	Droughty	1.00
				Slope	0.63	Slope	0.63
						Gravel content	0.24
HuB:							
Hudson--------------	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.43
		Shrink-swell	0.50	Too clayey	0.12		
		Depth to saturated zone	0.43	Cutbanks cave	0.10		
HuC:							
Hudson--------------	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Slope	0.63
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.43
		Shrink-swell	0.50	Too clayey	0.12		
		Depth to saturated zone	0.43	Cutbanks cave	0.10		
HuD:							
Hudson, hilly-------	70	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to saturated zone	0.43
		Shrink-swell	0.50	Too clayey	0.12		
		Depth to saturated zone	0.43	Cutbanks cave	0.10		
HuE:							
Hudson--------------	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.43
		Shrink-swell	0.50	Too clayey	0.12		
		Depth to saturated zone	0.43	Cutbanks cave	0.10		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
In:							
Ilion	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Depth to dense layer	0.50		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Lm:							
Limerick	50	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	0.80		
Saco	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
LY:							
Lyme, very stony	80	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	1.00		
Ma:							
Madalin	80	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	0.12		
		Shrink-swell	0.50	Cutbanks cave	0.10		
MnB:							
Manlius, undulating	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Frost action	0.50	Depth to dense layer	0.50	Droughty	0.87
				Cutbanks cave	0.10	Gravel content	0.01
Nassau	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
						Gravel content	0.08

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
MnC:							
Manlius, rolling	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to bedrock	0.90
		Slope	0.63	Slope	0.63	Droughty	0.87
		Frost action	0.50	Depth to dense layer	0.50	Slope	0.63
				Cutbanks cave	0.10	Gravel content	0.01
Nassau	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Droughty	1.00
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.63
						Gravel content	0.08
MnD:							
Manlius, hilly	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Droughty	0.87
		Depth to hard bedrock	0.46	Depth to dense layer	0.50	Depth to bedrock	0.46
				Cutbanks cave	0.10	Gravel content	0.01
Nassau	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
						Gravel content	0.08
Ms:							
Massena	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.94	Cutbanks cave	0.10		
MvA:							
Mosherville	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to cemented pan	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.90
		Depth to saturated zone	0.90	Depth to dense layer	0.50	Droughty	0.74
				Cutbanks cave	0.10		
MvB:							
Mosherville	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to cemented pan	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.90
		Depth to saturated zone	0.90	Depth to dense layer	0.50	Droughty	0.74
				Cutbanks cave	0.10		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
MxB:							
Mosherville---------	50	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to cemented pan	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.90
		Depth to saturated zone	0.90	Depth to dense layer	0.50	Droughty	0.74
				Cutbanks cave	0.10		
Hornell, undulating-	40	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to hard bedrock	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	0.90
		Depth to hard bedrock	0.90	Cutbanks cave	0.10	Droughty	0.39
		Shrink-swell	0.50			Gravel content	0.08
NaC:							
Nassau, rolling-----	60	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Droughty	1.00
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.63
						Gravel content	0.08
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
NaD:							
Nassau, hilly-------	60	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
						Gravel content	0.08
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
Ne:							
Newstead------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to hard bedrock	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Depth to saturated zone	1.00	Depth to bedrock	0.95
		Depth to hard bedrock	0.95	Cutbanks cave	0.10	Droughty	0.61

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
NuB:							
Nunda	80	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00		
NuC:							
Nunda	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Slope	0.63
		Slope	0.63	Slope	0.63		
OaA:							
Oakville	70	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.22
				Depth to saturated zone	0.95		
OaB:							
Oakville, undulating	70	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.22
OaC:							
Oakville, rolling	70	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
				Slope	0.63	Droughty	0.22
OaD:							
Oakville, hilly	70	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.22
OeE:							
Oakville	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.22
Windsor	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.01
Pm:							
Palms	70	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		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Pp:							
Palms, ponded	85	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		
PtB:							
Paxton	70	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Gravel content	0.06
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Depth to saturated zone	0.01
				Depth to dense layer	0.50		
PtC:							
Paxton	70	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
		Frost action	0.50	Depth to saturated zone	1.00	Gravel content	0.06
		Depth to saturated zone	0.01	Slope	0.63	Depth to saturated zone	0.01
				Depth to dense layer	0.50		
Pu:							
Pits, Quarry	80	Not rated		Not rated		Not rated	
Pv:							
Pits, Sand And Gravel	80	Not rated		Not rated		Not rated	
PwA:							
Pittstown	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Depth to dense layer	0.50		
				Cutbanks cave	0.10		
PwB:							
Pittstown	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Frost action	0.50	Depth to dense layer	0.50		
				Cutbanks cave	0.10		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Ra:							
Raynham	60	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.94	Cutbanks cave	0.50		
RhA:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
RhB:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Sa:							
Scarboro	70	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
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
SCB:							
Schroon, stony	80	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Cutbanks cave	1.00		
SeA:							
Scio	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Cutbanks cave	1.00		
SeB:							
Scio	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Cutbanks cave	1.00		
Sh:							
Shaker	70	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Too clayey	0.12		
				Cutbanks cave	0.10		

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
SKB:							
Skerry, very stony	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	0.43
		Depth to saturated zone	0.43	Depth to saturated zone	1.00		
Sn:							
Sun	70	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		
StA:							
Sutton	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Depth to saturated zone	1.00		
StB:							
Sutton	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	1.00	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Depth to saturated zone	1.00		
Te:							
Teel	70	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	Cutbanks cave	0.10		
Tg:							
Tioga	80	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Flooding	0.60	Flooding	0.60
		Frost action	0.50	Depth to saturated zone	0.35		
				Cutbanks cave	0.10		
TNC:							
Tunbridge, very bouldery	50	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.54	Depth to hard bedrock	1.00	Depth to bedrock	0.54
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.04
		Slope	0.04	Slope	0.04		
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.81
		Slope	0.04	Slope	0.04	Slope	0.04

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
TNE:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Slope	1.00	Depth to bedrock	0.54
		Frost action	0.50	Cutbanks cave	0.10		
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.81
TNF:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Slope	1.00	Depth to bedrock	0.54
		Frost action	0.50	Cutbanks cave	0.10		
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.81
Ud:							
Udipsamments, dredged	90	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Droughty	0.92
				Flooding	0.60	Flooding	0.60
Ue:							
Udorthents, smoothed	80	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
				Depth to saturated zone	0.35		
UnB:							
Unadilla	70	Very limited		Very limited		Not limited	
		Frost action	1.00	Cutbanks cave	1.00		
UnC:							
Unadilla	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	1.00	Slope	0.63
		Slope	0.63	Slope	0.63		
W:							
Water	100	Not rated		Not rated		Not rated	

Table 15.--Building Site Development, Part II--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Wa:							
Wareham	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
WnA:							
Windsor	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.01
WnB:							
Windsor, undulating	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.01
WnC:							
Windsor, rolling	75	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
				Slope	0.63	Droughty	0.01
WnD:							
Windsor, hilly	75	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.01
WO:							
Wonsqueak, ponded	70	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	Cutbanks cave	0.10		
WrB:							
Woodbridge	70	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Depth to dense layer	0.50	Droughty	0.12
				Cutbanks cave	0.10		

Table 16.--Sanitary Facilities, Part I

(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	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
ALA:					
Allagash	80	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Restricted permeability	0.32	Content of organic matter	1.00
ALC:					
Allagash	80	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Restricted permeability	0.32	Slope	1.00
		Slope	0.04	Content of organic matter	1.00
ALE:					
Allagash	80	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Filtering capacity	1.00	Seepage	1.00
		Restricted permeability	0.32	Content of organic matter	1.00
As:					
Allis	80	Very limited		Very limited	
		Restricted permeability	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00		
BCC:					
Becket, very bouldery	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Restricted permeability	0.50	Content of organic matter	1.00
		Slope	0.16	Depth to saturated zone	0.86
				Seepage	0.50
BCE:					
Becket, very bouldery	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Content of organic matter	1.00
		Restricted permeability	0.50	Depth to saturated zone	0.86
				Seepage	0.50

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
BEC:					
Becket, very bouldery	40	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Restricted permeability	0.50	Content of organic matter	1.00
		Slope	0.04	Depth to saturated zone	0.86
				Seepage	0.50
Tunbridge, very bouldery	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
BEE:					
Becket, very bouldery	40	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Content of organic matter	1.00
		Restricted permeability	0.50	Depth to saturated zone	0.86
				Seepage	0.50
Tunbridge, very bouldery	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
BHC:					
Berkshire, very bouldery	70	Somewhat limited		Very limited	
		Slope	0.04	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
BHE:					
Berkshire, very bouldery	70	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
BLC:					
Berkshire, very bouldery	40	Somewhat limited		Very limited	
		Slope	0.04	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
Tunbridge, very bouldery	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
BLE:					
Berkshire, very bouldery	40	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
Tunbridge, very bouldery	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
BmB:					
Bernardston	85	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Slope	0.91
		Restricted permeability	0.50	Seepage	0.50
				Depth to saturated zone	0.08
BmC:					
Bernardston	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
		Slope	0.16	Depth to saturated zone	0.08

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
BmD:					
Bernardston---------	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Seepage	0.50
		Restricted permeability	0.50	Depth to saturated zone	0.08
BnB:					
Bernardston---------	50	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Slope	0.91
		Restricted permeability	0.50	Seepage	0.50
				Depth to saturated zone	0.08
Manlius-------------	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Restricted permeability	0.50	Slope	0.91
				Seepage	0.50
Nassau--------------	15	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
				Slope	0.91
				Seepage	0.50
BnC:					
Bernardston---------	50	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Seepage	0.50
		Restricted permeability	0.50	Depth to saturated zone	0.08
Manlius-------------	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
Nassau--------------	15	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
				Seepage	0.50

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
BnD:					
Bernardston	50	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Seepage	0.50
		Restricted permeability	0.50	Depth to saturated zone	0.08
Manlius	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
Nassau	15	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	0.50
BOC:					
Bice, stony	75	Somewhat limited		Very limited	
		Slope	0.04	Slope	1.00
				Seepage	1.00
BOE:					
Bice, stony	75	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
BPC:					
Bice, stony	50	Somewhat limited		Very limited	
		Slope	0.04	Slope	1.00
				Seepage	1.00
Woodstock, stony	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Seepage	1.00
				Slope	1.00
				Content of organic matter	1.00
BPE:					
Bice, stony	50	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
Woodstock, stony	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
BtB:					
Broadalbin----------	70	Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Slope	0.91
		Restricted permeability	0.50	Seepage	0.50
				Depth to saturated zone	0.17
BtC:					
Broadalbin----------	70	Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
		Slope	0.16	Depth to saturated zone	0.17
BtD:					
Broadalbin----------	70	Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Seepage	0.50
		Restricted permeability	0.50	Depth to saturated zone	0.17
BvB:					
Broadalbin----------	50	Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Slope	0.91
		Restricted permeability	0.50	Seepage	0.50
				Depth to saturated zone	0.17
Manlius-------------	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Restricted permeability	0.50	Slope	0.91
				Seepage	0.50
Nassau--------------	15	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
				Slope	0.91
				Seepage	0.50

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
BvC:					
Broadalbin	50	Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
		Slope	0.16	Depth to saturated zone	0.17
Manlius	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
Nassau	15	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
				Seepage	0.50
BvD:					
Broadalbin	50	Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Seepage	0.50
		Restricted permeability	0.50	Depth to saturated zone	0.17
Manlius	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
Nassau	15	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	0.50
BxB:					
Burdett	75	Very limited		Somewhat limited	
		Restricted permeability	1.00	Slope	0.91
		Depth to saturated zone	1.00		
CcB:					
Charlton	80	Not limited		Very limited	
				Seepage	1.00
				Slope	0.91

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
CcC:					
Charlton	80	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
				Seepage	1.00
CcD:					
Charlton	80	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
CeB:					
Chatfield, undulating	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
				Seepage	1.00
				Content of organic matter	1.00
				Slope	0.91
Hollis, undulating	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
				Seepage	1.00
				Content of organic matter	1.00
				Slope	0.91
CeC:					
Chatfield, rolling	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
Hollis, rolling	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
CfD:					
Chatfield, hilly	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
CfD:					
Hollis, hilly-------	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
Cg:					
Cheektowaga---------	70	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
ChB:					
Chenango, loamy substratum---------	85	Not limited		Very limited	
				Seepage	1.00
				Slope	0.91
ChC:					
Chenango, loamy subtratum----------	85	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
				Seepage	1.00
ClA:					
Claverack-----------	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	1.00	Depth to saturated zone	0.08
				Slope	0.01
ClB:					
Claverack-----------	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	1.00	Slope	0.91
				Depth to saturated zone	0.08
COC:					
Colton--------------	90	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Slope	0.04	Slope	1.00
				Content of organic matter	1.00
COE:					
Colton--------------	90	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
				Content of organic matter	1.00

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Cs:					
Cosad---------------	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	1.00		
DeA:					
Deerfield-----------	75	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	1.00	Depth to saturated zone	1.00
				Slope	0.01
DeB:					
Deerfield, undulating---------	75	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	1.00	Depth to saturated zone	1.00
				Slope	0.91
ElB:					
Elmridge------------	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
				Slope	0.91
				Depth to saturated zone	0.01
FaB:					
Farmington, rocky---	75	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
				Slope	0.91
				Seepage	0.50
FcC:					
Farmington, very rocky--------------	70	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	1.00
				Seepage	0.50
Fl:					
Fluvaquents, frequently flooded-	60	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Filtering capacity	1.00	Seepage	1.00

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
FU:					
Fluvaquents, flooded	55	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Filtering capacity	1.00	Seepage	1.00
Udipsamments	25	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Flooding	0.40	Flooding	0.40
				Slope	0.01
GaB:					
Galway	65	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.50	Slope	0.91
				Seepage	0.50
GaC:					
Galway	70	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Depth to saturated zone	1.00
		Restricted permeability	0.50	Seepage	0.50
HcA:					
Hinckley	80	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
HcB:					
Hinckley, undulating	80	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.91
HcC:					
Hinckley, rolling	80	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00
		Slope	0.63	Seepage	1.00

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
HcD:					
Hinckley, hilly-----	80	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
HoA:					
Hoosic--------------	70	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
HoB:					
Hoosic, undulating--	70	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.91
HoC:					
Hoosic, rolling-----	70	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00
		Slope	0.63	Seepage	1.00
HuB:					
Hudson--------------	70	Very limited		Very limited	
		Restricted permeability	1.00	Content of organic matter	1.00
		Depth to saturated zone	1.00	Slope	0.91
				Depth to saturated zone	0.08
HuC:					
Hudson--------------	70	Very limited		Very limited	
		Restricted permeability	1.00	Slope	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00
		Slope	0.63	Depth to saturated zone	0.08
HuD:					
Hudson, hilly-------	70	Very limited		Very limited	
		Restricted permeability	1.00	Slope	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00
		Slope	1.00	Depth to saturated zone	0.08
HuE:					
Hudson--------------	70	Very limited		Very limited	
		Restricted permeability	1.00	Slope	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00
		Slope	1.00	Depth to saturated zone	0.08

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
In:					
Ilion	90	Very limited		Very limited	
		Restricted permeability	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Content of organic matter	1.00
				Seepage	0.27
Lm:					
Limerick	50	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.50	Seepage	0.50
Saco	40	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.50	Seepage	0.50
LY:					
Lyme, very stony	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.08	Seepage	1.00
Ma:					
Madalin	80	Very limited		Very limited	
		Restricted permeability	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
MnB:					
Manlius, undulating	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Restricted permeability	0.50	Slope	0.91
				Seepage	0.50
Nassau	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
				Slope	0.91
				Seepage	0.50

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
MnC:					
Manlius, rolling	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
Nassau	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
				Seepage	0.50
MnD:					
Manlius, hilly	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
Nassau	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	0.50
Ms:					
Massena	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	1.00	Slope	0.01
				Seepage	0.01
MvA:					
Mosherville	75	Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Seepage	0.50
				Slope	0.01
MvB:					
Mosherville	75	Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Slope	0.91
				Seepage	0.50

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
MxB:					
Mosherville---------	50	Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Slope	0.91
				Seepage	0.50
Hornell, undulating-	40	Very limited		Very limited	
		Restricted permeability	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Slope	0.91
NaC:					
Nassau, rolling-----	60	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.63	Slope	1.00
				Seepage	0.50
Rock Outcrop--------	20	Not rated		Not rated	
NaD:					
Nassau, hilly-------	60	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	0.50
Rock Outcrop--------	20	Not rated		Not rated	
Ne:					
Newstead------------	70	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Depth to saturated zone	1.00	Seepage	0.50
				Slope	0.01
NuB:					
Nunda---------------	80	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Slope	0.91
		Restricted permeability	1.00	Seepage	0.50
				Depth to saturated zone	0.01

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
NuC:					
Nunda	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Restricted permeability	1.00	Seepage	0.50
		Slope	0.63	Depth to saturated zone	0.01
OaA:					
Oakville	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	1.00	Depth to saturated zone	1.00
OaB:					
Oakville, undulating	70	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.91
OaC:					
Oakville, rolling	70	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00
		Slope	0.63	Seepage	1.00
OaD:					
Oakville, hilly	70	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Filtering capacity	1.00	Seepage	1.00
OeE:					
Oakville	40	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Filtering capacity	1.00	Seepage	1.00
Windsor	40	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Filtering capacity	1.00	Seepage	1.00
				Content of organic matter	1.00
Pm:					
Palms	70	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Content of organic matter	1.00
		Restricted permeability	1.00	Seepage	0.27

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Pp:					
Palms, ponded-------	85	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Content of organic matter	1.00
		Restricted permeability	1.00	Seepage	0.27
PtB:					
Paxton--------------	70	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Slope	0.91
		Restricted permeability	0.50	Depth to saturated zone	0.75
				Seepage	0.50
PtC:					
Paxton--------------	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Depth to saturated zone	0.75
		Restricted permeability	0.50	Seepage	0.50
Pu:					
Pits, Quarry--------	80	Not rated		Not rated	
Pv:					
Pits, Sand And Gravel------------	80	Not rated		Not rated	
PwA:					
Pittstown-----------	80	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Seepage	0.50
				Depth to saturated zone	0.01
				Slope	0.01
PwB:					
Pittstown-----------	80	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Slope	0.91
				Seepage	0.50
				Depth to saturated zone	0.01
Ra:					
Raynham-------------	60	Very limited		Very limited	
		Restricted permeability	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	0.27
				Slope	0.01

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
RhA:					
Rhinebeck-----------	70	Very limited		Somewhat limited	
		Restricted permeability	1.00	Slope	0.01
		Depth to saturated zone	1.00		
RhB:					
Rhinebeck-----------	70	Very limited		Somewhat limited	
		Restricted permeability	1.00	Slope	0.91
		Depth to saturated zone	1.00		
Sa:					
Scarboro------------	70	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	1.00	Depth to saturated zone	1.00
				Content of organic matter	1.00
SCB:					
Schroon, stony------	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.50	Content of organic matter	1.00
				Seepage	0.50
				Slope	0.33
SeA:					
Scio----------------	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00
				Slope	0.01
SeB:					
Scio----------------	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00
				Slope	0.91
Sh:					
Shaker--------------	70	Very limited		Very limited	
		Restricted permeability	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	1.00

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
SKB:					
Skerry, very stony	70	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Seepage	0.50
		Restricted permeability	0.50	Slope	0.33
				Depth to saturated zone	0.01
Sn:					
Sun	70	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	1.00	Content of organic matter	1.00
				Seepage	0.50
StA:					
Sutton	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00
				Slope	0.01
StB:					
Sutton	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00
				Slope	0.91
Te:					
Teel	70	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.50	Seepage	0.50
Tg:					
Tioga	80	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Filtering capacity	1.00	Seepage	1.00
		Depth to saturated zone	0.84	Depth to saturated zone	0.17
				Slope	0.01
TNC:					
Tunbridge, very bouldery	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
TNC:					
Lyman, very bouldery	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	0.04	Seepage	1.00
				Slope	1.00
				Content of organic matter	1.00
TNE:					
Tunbridge, very bouldery-----------	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
Lyman, very bouldery	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
TNF:					
Tunbridge, very bouldery-----------	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
Lyman, very bouldery	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
				Content of organic matter	1.00
Ud:					
Udipsamments, dredged------------	90	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.33

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Ue:					
Udorthents, smoothed	80	Very limited		Somewhat limited	
		Restricted permeability	1.00	Depth to saturated zone	0.17
		Depth to saturated zone	0.84	Slope	0.09
UnB:					
Unadilla------------	70	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Restricted permeability	0.50	Content of organic matter	1.00
				Slope	0.91
UnC:					
Unadilla------------	70	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00
		Slope	0.63	Seepage	1.00
		Restricted permeability	0.50	Content of organic matter	1.00
W:					
Water---------------	100	Not rated		Not rated	
Wa:					
Wareham-------------	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Filtering capacity	1.00	Depth to saturated zone	1.00
				Content of organic matter	1.00
WnA:					
Windsor-------------	80	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
				Content of organic matter	1.00
WnB:					
Windsor, undulating-	80	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
				Content of organic matter	1.00
				Slope	0.91
WnC:					
Windsor, rolling----	75	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00
		Slope	0.63	Seepage	1.00
				Content of organic matter	1.00

Table 16.--Sanitary Facilities, Part I--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
WnD:					
Windsor, hilly------	75	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Filtering capacity	1.00	Seepage	1.00
				Content of organic matter	1.00
WO:					
Wonsqueak, ponded---	70	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Subsidence	1.00	Content of organic matter	1.00
		Restricted permeability	1.00	Seepage	0.01
WrB:					
Woodbridge----------	70	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Slope	0.91
		Restricted permeability	0.50	Seepage	0.50
				Depth to saturated zone	0.25

Table 17.--Sanitary Facilities, Part II

(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	Pct. of map unit	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
ALA:							
Allagash	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
ALC:							
Allagash	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00	Slope	0.04	Seepage	1.00
		Slope	0.04			Slope	0.04
ALE:							
Allagash	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00	Slope	1.00	Seepage	1.00
		Slope	1.00			Slope	1.00
As:							
Allis	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
		Too clayey	1.00			Too clayey	1.00
BCC:							
Becket, very bouldery	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.82	Slope	0.16	Depth to saturated zone	0.41
		Slope	0.16	Depth to saturated zone	0.14	Slope	0.16
BCE:							
Becket, very bouldery	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.82	Depth to saturated zone	0.14	Depth to saturated zone	0.41
BEC:							
Becket, very bouldery	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.82	Depth to saturated zone	0.14	Depth to saturated zone	0.41
		Slope	0.04	Slope	0.04	Slope	0.04

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
BEC:							
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Seepage	1.00	Seepage	0.21
				Slope	0.04	Slope	0.04
BEE:							
Becket, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.82	Depth to saturated zone	0.14	Depth to saturated zone	0.41
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
				Seepage	1.00	Seepage	0.21
BHC:							
Berkshire, very bouldery	70	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Seepage	1.00	Seepage	0.21
		Slope	0.04	Slope	0.04	Slope	0.04
BHE:							
Berkshire, very bouldery	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00	Seepage	1.00	Seepage	0.21
BLC:							
Berkshire, very bouldery	40	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Seepage	1.00	Seepage	0.21
		Slope	0.04	Slope	0.04	Slope	0.04
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Seepage	1.00	Seepage	0.21
				Slope	0.04	Slope	0.04
BLE:							
Berkshire, very bouldery	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00	Seepage	1.00	Seepage	0.21
Tunbridge, very bouldery	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
				Seepage	1.00	Seepage	0.21

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
BmB:							
Bernardston	85	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.92	Depth to saturated zone	0.95
BmC:							
Bernardston	85	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.92	Depth to saturated zone	0.95
		Slope	0.16	Slope	0.16	Slope	0.16
BmD:							
Bernardston	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Depth to saturated zone	0.92	Depth to saturated zone	0.95
BnB:							
Bernardston	50	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.92	Depth to saturated zone	0.95
Manlius	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Gravel content	0.95
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Gravel content	1.00
BnC:							
Bernardston	50	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.92	Depth to saturated zone	0.95
		Slope	0.63	Slope	0.63	Slope	0.63
Manlius	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Gravel content	0.95
						Slope	0.63
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Gravel content	1.00
						Slope	0.63
BnD:							
Bernardston	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Depth to saturated zone	0.92	Depth to saturated zone	0.95
Manlius	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	0.95

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
BnD:							
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	1.00
BOC:							
Bice, stony	75	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Seepage	1.00	Seepage	0.21
		Slope	0.04	Slope	0.04	Slope	0.04
BOE:							
Bice, stony	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00	Seepage	1.00	Seepage	0.21
BPC:							
Bice, stony	50	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Seepage	1.00	Seepage	0.21
		Slope	0.04	Slope	0.04	Slope	0.04
Woodstock, stony	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00	Slope	0.04	Seepage	0.50
		Slope	0.04			Slope	0.04
BPE:							
Bice, stony	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00	Seepage	1.00	Seepage	0.21
Woodstock, stony	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00			Seepage	0.50
BtB:							
Broadalbin	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to thin cemented pan	0.50	Depth to saturated zone	0.83	Depth to saturated zone	0.91
BtC:							
Broadalbin	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to thin cemented pan	0.50	Depth to saturated zone	0.83	Depth to saturated zone	0.91
		Slope	0.16	Slope	0.16	Slope	0.16
BtD:							
Broadalbin	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to thin cemented pan	0.50	Depth to saturated zone	0.83	Depth to saturated zone	0.91

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
BvB:							
Broadalbin	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to thin cemented pan	0.50	Depth to saturated zone	0.83	Depth to saturated zone	0.91
Manlius	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Gravel content	0.95
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Gravel content	1.00
BvC:							
Broadalbin	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Depth to thin cemented pan	0.50	Depth to saturated zone	0.83	Depth to saturated zone	0.91
		Slope	0.16	Slope	0.16	Slope	0.16
Manlius	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Gravel content	0.95
						Slope	0.63
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Gravel content	1.00
						Slope	0.63
BvD:							
Broadalbin	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to cemented pan	1.00	Depth to cemented pan	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to thin cemented pan	0.50	Depth to saturated zone	0.83	Depth to saturated zone	0.91
Manlius	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	0.95
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	1.00
BxB:							
Burdett	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too clayey	0.50			Too clayey	0.50
						Gravel content	0.10

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
CcB:							
Charlton	80	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Seepage	1.00	Seepage	0.21
CcC:							
Charlton	80	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Seepage	1.00	Slope	0.63
		Slope	0.63	Slope	0.63	Seepage	0.21
CcD:							
Charlton	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00	Seepage	1.00	Seepage	0.21
CeB:							
Chatfield, undulating	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00	Seepage	1.00	Seepage	0.21
Hollis, undulating	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00			Seepage	0.21
CeC:							
Chatfield, rolling	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00	Seepage	1.00	Slope	0.63
		Slope	0.63	Slope	0.63	Seepage	0.21
Hollis, rolling	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00	Slope	0.63	Slope	0.63
		Slope	0.63			Seepage	0.21
CfD:							
Chatfield, hilly	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00	Seepage	1.00	Seepage	0.21
Hollis, hilly	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00			Seepage	0.21
Cg:							
Cheektowaga	70	Very limited		Very limited		Very limited	
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Seepage	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	1.00	Seepage	1.00
		Too Sandy	1.00			Too Sandy	0.50

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
ChB:							
Chenango, loamy substratum	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Seepage	1.00
						Gravel content	1.00
ChC:							
Chenango, loamy subtratum	85	Very limited		Very limited		Very limited	
		Too Sandy	1.00	Seepage	1.00	Seepage	1.00
		Seepage	1.00	Slope	0.63	Gravel content	1.00
		Slope	0.63			Slope	0.63
						Too Sandy	0.50
ClA:							
Claverack	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.92	Depth to saturated zone	0.95
		Too Sandy	1.00			Too Sandy	0.50
ClB:							
Claverack	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.92	Seepage	1.00
		Too Sandy	1.00			Depth to saturated zone	0.95
COC:							
Colton	90	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Too Sandy	1.00	Slope	0.04	Gravel content	0.94
		Slope	0.04			Too Sandy	0.50
						Slope	0.04
COE:							
Colton	90	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Too Sandy	1.00	Slope	1.00	Slope	1.00
		Slope	1.00			Gravel content	0.94
						Too Sandy	0.50
Cs:							
Cosad	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Seepage	1.00	Depth to saturated zone	1.00
		Too Sandy	1.00			Too Sandy	0.50
DeA:							
Deerfield	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too Sandy	1.00
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Too Sandy	1.00			Depth to saturated zone	0.68

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
DeB:							
Deerfield, undulating	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too Sandy	1.00
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Too Sandy	1.00			Depth to saturated zone	0.68
ElB:							
Elmridge	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Seepage	0.50
FaB:							
Farmington, rocky	75	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
FcC:							
Farmington, very rocky	70	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	0.04
Fl:							
Fluvaquents, frequently flooded	60	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage	1.00	Seepage	1.00	Gravel content	0.57
FU:							
Fluvaquents, flooded	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage	1.00	Seepage	1.00	Gravel content	0.57
Udipsamments	25	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Too Sandy	1.00	Flooding	0.40	Too Sandy	0.50
		Flooding	0.40				
GaB:							
Galway	65	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to saturated zone	0.62

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
GaC:							
Galway--------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	0.63
		Slope	0.63	Slope	0.63	Depth to saturated zone	0.62
HcA:							
Hinckley------------	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
						Gravel content	0.93
HcB:							
Hinckley, undulating	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
						Gravel content	0.93
HcC:							
Hinckley, rolling---	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00	Slope	0.63	Seepage	1.00
		Slope	0.63			Gravel content	0.93
						Slope	0.63
HcD:							
Hinckley, hilly-----	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00	Slope	1.00	Seepage	1.00
		Slope	1.00			Slope	1.00
						Gravel content	0.93
HoA:							
Hoosic--------------	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
						Gravel content	1.00
HoB:							
Hoosic, undulating--	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
						Gravel content	1.00
HoC:							
Hoosic, rolling-----	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00	Slope	0.63	Seepage	1.00
		Slope	0.63			Gravel content	1.00
						Slope	0.63
HuB:							
Hudson--------------	70	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.92	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
						Depth to saturated zone	0.95

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
HuC:							
Hudson	70	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.92	Too clayey	1.00
		Too clayey	1.00	Slope	0.63	Hard to compact	1.00
		Slope	0.63			Depth to saturated zone	0.95
						Slope	0.63
HuD:							
Hudson, hilly	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00	Too clayey	1.00
		Too clayey	1.00	Depth to saturated zone	0.92	Slope	1.00
		Slope	1.00			Hard to compact	1.00
						Depth to saturated zone	0.95
HuE:							
Hudson	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.92	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
						Depth to saturated zone	0.95
In:							
Ilion	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Lm:							
Limerick	50	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Lm:							
Saco	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too Sandy	0.50
		Too Sandy	1.00				
LY:							
Lyme, very stony	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too Sandy	1.00	Seepage	1.00	Too Sandy	0.50
		Seepage	1.00			Seepage	0.26

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
Ma:							
Madalin	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
		Ponding	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
MnB:							
Manlius, undulating	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Gravel content	0.95
Nassau	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Gravel content	1.00
MnC:							
Manlius, rolling	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Gravel content	0.95
						Slope	0.63
Nassau	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Gravel content	1.00
						Slope	0.63
MnD:							
Manlius, hilly	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	0.47
Nassau	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	1.00
Ms:							
Massena	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
MvA:							
Mosherville	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to saturated zone	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Depth to cemented pan	1.00	Depth to saturated zone	1.00
MvB:							
Mosherville	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to saturated zone	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Depth to cemented pan	1.00	Depth to saturated zone	1.00

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
MxB:							
Mosherville---------	50	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to saturated zone	1.00	Depth to cemented pan	1.00
		Depth to saturated zone	1.00	Depth to cemented pan	1.00	Depth to saturated zone	1.00
Hornell, undulating-	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
		Too clayey	1.00			Depth to saturated zone	1.00
						Hard to compact	1.00
						Gravel content	0.82
NaC:							
Nassau, rolling-----	60	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Gravel content	1.00
						Slope	0.63
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
NaD:							
Nassau, hilly-------	60	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	1.00
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
Ne:							
Newstead------------	70	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to saturated zone	1.00	Depth to bedrock	1.00
		Depth to saturated zone	1.00	Depth to bedrock	1.00	Depth to saturated zone	1.00
NuB:							
Nunda---------------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too clayey	0.50			Too clayey	0.50
NuC:							
Nunda---------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.63	Slope	0.63	Slope	0.63
		Too clayey	0.50			Too clayey	0.50

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
OaA:							
Oakville------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too Sandy	1.00
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Too Sandy	1.00			Depth to saturated zone	0.11
OaB:							
Oakville, undulating	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
OaC:							
Oakville, rolling---	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00	Slope	0.63	Seepage	1.00
		Slope	0.63			Slope	0.63
OaD:							
Oakville, hilly-----	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00	Slope	1.00	Seepage	1.00
		Slope	1.00			Slope	1.00
OeE:							
Oakville------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
Windsor-------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
Pm:							
Palms---------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00		
Pp:							
Palms, ponded-------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00		
PtB:							
Paxton--------------	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.89	Depth to saturated zone	0.25	Depth to saturated zone	0.53
						Gravel content	0.06

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
PtC:							
Paxton	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.89	Slope	0.63	Slope	0.63
		Slope	0.63	Depth to saturated zone	0.25	Depth to saturated zone	0.53
						Gravel content	0.06
Pu:							
Pits, Quarry	80	Not rated		Not rated		Not rated	
Pv:							
Pits, Sand And Gravel	80	Not rated		Not rated		Not rated	
PwA:							
Pittstown	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
PwB:							
Pittstown	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ra:							
Raynham	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RhA:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too clayey	0.50			Hard to compact	1.00
						Too clayey	0.50
RhB:							
Rhinebeck	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too clayey	0.50			Hard to compact	1.00
						Too clayey	0.50
Sa:							
Scarboro	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Too Sandy	1.00			Too Sandy	0.50

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
SCB:							
Schroon, stony	80	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.95
SeA:							
Scio	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too Sandy	1.00
		Too Sandy	1.00	Seepage	1.00	Depth to saturated zone	0.95
		Seepage	1.00			Seepage	0.09
SeB:							
Scio	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too Sandy	1.00
		Too Sandy	1.00	Seepage	1.00	Depth to saturated zone	0.95
		Seepage	1.00			Seepage	0.09
Sh:							
Shaker	70	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	Seepage	1.00	Depth to saturated zone	1.00
SKB:							
Skerry, very stony	70	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.95
Sn:							
Sun	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
StA:							
Sutton	70	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Seepage	1.00	Seepage	1.00	Seepage	0.21
StB:							
Sutton	70	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Seepage	1.00	Seepage	1.00	Seepage	0.21
Te:							
Teel	70	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
Tg:							
Tioga	80	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Seepage	1.00	Seepage	1.00		
TNC:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Seepage	1.00	Seepage	0.21
				Slope	0.04	Slope	0.04
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage	1.00	Slope	0.04	Seepage	0.50
		Slope	0.04			Slope	0.04
TNE:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
				Seepage	1.00	Seepage	0.21
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00			Seepage	0.50
TNF:							
Tunbridge, very bouldery	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
				Seepage	1.00	Seepage	0.21
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Seepage	1.00			Seepage	0.50
Ud:							
Udipsamments, dredged	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Seepage	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy	0.50
		Too Sandy	1.00				
Ue:							
Udorthents, smoothed	80	Very limited		Very limited		Not limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
UnB:							
Unadilla	70	Very limited		Not limited		Not limited	
		Seepage	1.00				

Table 17.--Sanitary Facilities, Part II--Continued

Map symbol and soil name	Pct. of map unit	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
UnC:							
Unadilla------------	70	Very limited		Somewhat limited		Somewhat limited	
		Seepage	1.00	Slope	0.63	Slope	0.63
		Slope	0.63				
W:							
Water---------------	100	Not rated		Not rated		Not rated	
Wa:							
Wareham-------------	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage	1.00	Seepage	1.00	Depth to saturated zone	1.00
		Too Sandy	1.00			Too Sandy	0.50
WnA:							
Windsor-------------	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
WnB:							
Windsor, undulating-	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00			Seepage	1.00
WnC:							
Windsor, rolling----	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00	Slope	0.63	Seepage	1.00
		Slope	0.63			Slope	0.63
WnD:							
Windsor, hilly------	75	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Too Sandy	1.00
		Too Sandy	1.00	Slope	1.00	Seepage	1.00
		Slope	1.00			Slope	1.00
WO:							
Wonsqueak, ponded---	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00		
WrB:							
Woodbridge----------	70	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.86

Table 18.--Construction Materials, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
ALA:					
Allagash	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.22
ALC:					
Allagash	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.22
ALE:					
Allagash	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.22
As:					
Allis	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BCC:					
Becket, very bouldery	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.06
		Thickest layer	0.00	Thickest layer	0.06
BCE:					
Becket, very bouldery	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.06
		Thickest layer	0.00	Thickest layer	0.06
BEC:					
Becket, very bouldery	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.06
		Thickest layer	0.00	Thickest layer	0.06
Tunbridge, very bouldery	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04
BEE:					
Becket, very bouldery	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.06
		Thickest layer	0.00	Thickest layer	0.06

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
BEE:					
Tunbridge, very bouldery	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04
BHC:					
Berkshire, very bouldery	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BHE:					
Berkshire, very bouldery	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BLC:					
Berkshire, very bouldery	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tunbridge, very bouldery	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04
BLE:					
Berkshire, very bouldery	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tunbridge, very bouldery	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04
BmB:					
Bernardston	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BmC:					
Bernardston	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BmD:					
Bernardston	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
BnB:					
Bernardston	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Manlius	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nassau	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BnC:					
Bernardston	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Manlius	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nassau	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BnD:					
Bernardston	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Manlius	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nassau	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BOC:					
Bice, stony	75	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.03
BOE:					
Bice, stony	75	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.03
BPC:					
Bice, stony	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.03
Woodstock, stony	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
BPE:					
Bice, stony	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.03
Woodstock, stony	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04
BtB:					
Broadalbin	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BtC:					
Broadalbin	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BtD:					
Broadalbin	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BvB:					
Broadalbin	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Manlius	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nassau	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BvC:					
Broadalbin	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Manlius	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nassau	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BvD:					
Broadalbin	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Manlius	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
BvD:					
Nassau	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BxB:					
Burdett	75	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CcB:					
Charlton	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
CcC:					
Charlton	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
CcD:					
Charlton	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
CeB:					
Chatfield, undulating	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hollis, undulating	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CeC:					
Chatfield, rolling	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hollis, rolling	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CfD:					
Chatfield, hilly	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hollis, hilly	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cg:					
Cheektowaga	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
ChB:					
Chenango, loamy substratum	85	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
ChC:					
Chenango, loamy subtratum	85	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
ClA:					
Claverack	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.22
ClB:					
Claverack	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.22
COC:					
Colton	90	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.12	Thickest layer	0.06
COE:					
Colton	90	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.12	Thickest layer	0.06
Cs:					
Cosad	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.01
DeA:					
Deerfield	75	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.22
DeB:					
Deerfield, undulating	75	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.22
ElB:					
Elmridge	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FaB:					
Farmington, rocky	75	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
FcC:					
Farmington, very rocky	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Fl:					
Fluvaquents, frequently flooded	60	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.10
FU:					
Fluvaquents, flooded	55	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.10
Udipsamments	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.22
		Thickest layer	0.00	Thickest layer	0.22
GaB:					
Galway	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
GaC:					
Galway	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HcA:					
Hinckley	80	Fair		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.05	Thickest layer	0.00
HcB:					
Hinckley, undulating	80	Fair		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.05	Thickest layer	0.00
HcC:					
Hinckley, rolling	80	Fair		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.05	Thickest layer	0.00
HcD:					
Hinckley, hilly	80	Fair		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.05	Thickest layer	0.00
HoA:					
Hoosic	70	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.12	Thickest layer	0.03
HoB:					
Hoosic, undulating	70	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.12	Thickest layer	0.03

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
HoC:					
Hoosic, rolling-----	70	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.12	Thickest layer	0.03
HuB:					
Hudson--------------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HuC:					
Hudson--------------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HuD:					
Hudson, hilly-------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HuE:					
Hudson--------------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
In:					
Ilion---------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lm:					
Limerick------------	50	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.12
Saco----------------	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LY:					
Lyme, very stony----	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.06
		Thickest layer	0.00	Bottom layer	0.10
Ma:					
Madalin-------------	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MnB:					
Manlius, undulating-	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nassau--------------	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
MnC:					
Manlius, rolling----	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nassau--------------	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MnD:					
Manlius, hilly------	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Nassau--------------	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ms:					
Massena-------------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MvA:					
Mosherville---------	75	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MvB:					
Mosherville---------	75	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MxB:					
Mosherville---------	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hornell, undulating-	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
NaC:					
Nassau, rolling-----	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rock Outcrop--------	20	Not rated		Not rated	
NaD:					
Nassau, hilly-------	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rock Outcrop--------	20	Not rated		Not rated	

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
Ne:					
Newstead	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
NuB:					
Nunda	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
NuC:					
Nunda	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OaA:					
Oakville	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.12
		Thickest layer	0.00	Thickest layer	0.12
OaB:					
Oakville, undulating	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.12
		Thickest layer	0.00	Thickest layer	0.12
OaC:					
Oakville, rolling	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.12
		Thickest layer	0.00	Thickest layer	0.12
OaD:					
Oakville, hilly	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.12
		Thickest layer	0.00	Thickest layer	0.12
OeE:					
Oakville	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.12
		Thickest layer	0.00	Thickest layer	0.12
Windsor	40	Poor		Good	
		Bottom layer	0.00	Thickest layer	0.12
		Thickest layer	0.00		
Pm:					
Palms	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
Pp:					
Palms, ponded	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
PtB:					
Paxton	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
PtC:					
Paxton	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
Pu:					
Pits, Quarry	80	Not rated		Not rated	
Pv:					
Pits, Sand And Gravel	80	Not rated		Not rated	
PwA:					
Pittstown	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PwB:					
Pittstown	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ra:					
Raynham	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RhA:					
Rhinebeck	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RhB:					
Rhinebeck	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Sa:					
Scarboro	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.50
		Thickest layer	0.00	Thickest layer	0.50
SCB:					
Schroon, stony	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.06
		Thickest layer	0.00	Bottom layer	0.08
SeA:					
Scio	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SeB:					
Scio	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
Sh:					
Shaker--------------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SKB:					
Skerry, very stony--	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
Sn:					
Sun-----------------	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
StA:					
Sutton--------------	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.06
		Thickest layer	0.00	Thickest layer	0.07
StB:					
Sutton--------------	70	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.06
		Thickest layer	0.00	Thickest layer	0.07
Te:					
Teel----------------	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tg:					
Tioga---------------	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TNC:					
Tunbridge, very bouldery-----------	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04
Lyman, very bouldery	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TNE:					
Tunbridge, very bouldery-----------	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04
Lyman, very bouldery	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TNF:					
Tunbridge, very bouldery-----------	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
TNF:					
Lyman, very bouldery	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ud:					
Udipsamments, dredged	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.22
		Thickest layer	0.00	Thickest layer	0.22
Ue:					
Udorthents, smoothed	80	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
UnB:					
Unadilla	70	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
UnC:					
Unadilla	70	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
W:					
Water	100	Not rated		Not rated	
Wa:					
Wareham	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.22
		Thickest layer	0.00	Bottom layer	0.90
WnA:					
Windsor	80	Poor		Good	
		Bottom layer	0.00	Thickest layer	0.12
		Thickest layer	0.00		
WnB:					
Windsor, undulating	80	Poor		Good	
		Bottom layer	0.00	Thickest layer	0.12
		Thickest layer	0.00		
WnC:					
Windsor, rolling	75	Poor		Good	
		Bottom layer	0.00	Thickest layer	0.12
		Thickest layer	0.00		
WnD:					
Windsor, hilly	75	Poor		Good	
		Bottom layer	0.00	Thickest layer	0.12
		Thickest layer	0.00		

Table 18.--Construction Materials, Part I--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Potential source of gravel: Value	Potential source of sand: Rating class	Potential source of sand: Value
WO:					
Wonsqueak, ponded---	70	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
WrB:					
Woodbridge----------	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.07

Table 19.--Construction Materials, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
ALA:							
Allagash	80	Poor		Good		Fair	
		Low content of organic matter	0.00			Too acid	0.95
		Too acid	0.08				
ALC:							
Allagash	80	Poor		Good		Fair	
		Low content of organic matter	0.00			Too acid	0.95
		Too acid	0.08			Slope	0.96
ALE:							
Allagash	80	Poor		Poor		Poor	
		Low content of organic matter	0.00	Slope	0.00	Slope	0.00
		Too acid	0.08			Too acid	0.95
As:							
Allis	80	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Depth to saturated zone	0.00
		Droughty	0.07	Depth to saturated zone	0.00	Too Clayey	0.00
		Depth to bedrock	0.16	Shrink-swell	0.87	Rock fragments	0.00
		Too acid	0.46			Depth to bedrock	0.16
		Low content of organic matter	0.50			Too acid	0.95
		Water erosion	0.90				
BCC:							
Becket, very bouldery	70	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.92	Rock fragments	0.50
		Too acid	0.01			Slope	0.84
		Droughty	0.30			Too acid	0.88
						Depth to saturated zone	0.92
BCE:							
Becket, very bouldery	70	Poor		Poor		Poor	
		Low content of organic matter	0.00	Slope	0.00	Slope	0.00
		Too acid	0.01	Depth to saturated zone	0.92	Rock fragments	0.50
		Droughty	0.30			Too acid	0.88
						Depth to saturated zone	0.92

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BEC:							
Becket, very bouldery-----------	40	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.92	Rock fragments	0.50
		Too acid	0.01			Too acid	0.88
		Droughty	0.30			Depth to saturated zone	0.92
						Slope	0.96
Tunbridge, very bouldery-----------	40	Poor		Poor		Fair	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.46
		Too acid	0.01			Too acid	0.95
		Depth to bedrock	0.46			Slope	0.96
		Droughty	0.82			Rock fragments	0.98
BEE:							
Becket, very bouldery-----------	40	Poor		Poor		Poor	
		Low content of organic matter	0.00	Slope	0.00	Slope	0.00
		Too acid	0.01	Depth to saturated zone	0.92	Rock fragments	0.50
		Droughty	0.30			Too acid	0.88
						Depth to saturated zone	0.92
Tunbridge, very bouldery-----------	40	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.01	Slope	0.00	Depth to bedrock	0.46
		Depth to bedrock	0.46			Too acid	0.95
		Droughty	0.82			Rock fragments	0.98
BHC:							
Berkshire, very bouldery-----------	70	Poor		Good		Fair	
		Low content of organic matter	0.00			Too acid	0.88
		Too acid	0.01			Rock fragments	0.92
						Hard to reclaim	0.92
						Slope	0.96
BHE:							
Berkshire, very bouldery-----------	70	Poor		Poor		Poor	
		Low content of organic matter	0.00	Slope	0.00	Slope	0.00
		Too acid	0.01			Too acid	0.88
						Rock fragments	0.92
						Hard to reclaim	0.92

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BLC:							
Berkshire, very bouldery	40	Poor		Good		Fair	
		Low content of organic matter	0.00			Too acid	0.88
		Too acid	0.01			Rock fragments	0.92
						Hard to reclaim	0.92
						Slope	0.96
Tunbridge, very bouldery	40	Poor		Poor		Fair	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.46
		Too acid	0.01			Too acid	0.95
		Depth to bedrock	0.46			Slope	0.96
		Droughty	0.82			Rock fragments	0.98
BLE:							
Berkshire, very bouldery	40	Poor		Poor		Poor	
		Low content of organic matter	0.00	Slope	0.00	Slope	0.00
		Too acid	0.01			Too acid	0.88
						Rock fragments	0.92
						Hard to reclaim	0.92
Tunbridge, very bouldery	40	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.01	Slope	0.00	Depth to bedrock	0.46
		Depth to bedrock	0.46			Too acid	0.95
		Droughty	0.82			Rock fragments	0.98
BmB:							
Bernardston	85	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Rock fragments	0.00
		Droughty	0.62			Hard to reclaim	0.20
		Too acid	0.74			Depth to saturated zone	0.32
		No water erosion limitation	0.99				
BmC:							
Bernardston	85	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Rock fragments	0.00
		Droughty	0.62			Hard to reclaim	0.20
		Too acid	0.74			Depth to saturated zone	0.32
		No water erosion limitation	0.99			Slope	0.84

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BmD:							
Bernardston---------	85	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Slope	0.00
		Droughty	0.62	Slope	0.50	Rock fragments	0.00
		Too acid	0.74			Hard to reclaim	0.20
		No water erosion limitation	0.99			Depth to saturated zone	0.32
BnB:							
Bernardston---------	50	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Rock fragments	0.00
		Droughty	0.62			Hard to reclaim	0.20
		Too acid	0.74			Depth to saturated zone	0.32
		No water erosion limitation	0.99				
Manlius-------------	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.00			Hard to reclaim	0.01
		Depth to bedrock	0.10			Depth to bedrock	0.10
		Too acid	0.32			Too acid	0.95
Nassau--------------	15	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00			Depth to bedrock	0.00
		Low content of organic matter	0.00			Too acid	0.95
		Too acid	0.46				
BnC:							
Bernardston---------	50	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Rock fragments	0.00
		Droughty	0.62			Hard to reclaim	0.20
		Too acid	0.74			Depth to saturated zone	0.32
		No water erosion limitation	0.99			Slope	0.37
Manlius-------------	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.00			Hard to reclaim	0.01
		Depth to bedrock	0.10			Depth to bedrock	0.10
		Too acid	0.32			Slope	0.37
						Too acid	0.95
Nassau--------------	15	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00			Depth to bedrock	0.00
		Low content of organic matter	0.00			Slope	0.37
		Too acid	0.46			Too acid	0.95

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BnD:							
Bernardston---------	50	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Slope	0.00
		Droughty	0.62	Slope	0.50	Rock fragments	0.00
		Too acid	0.74			Hard to reclaim	0.20
		No water erosion limitation	0.99			Depth to saturated zone	0.32
Manlius-------------	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.00	Slope	0.50	Slope	0.00
		Depth to bedrock	0.10			Hard to reclaim	0.01
		Too acid	0.32			Depth to bedrock	0.10
						Too acid	0.95
Nassau--------------	15	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00	Slope	0.50	Depth to bedrock	0.00
		Low content of organic matter	0.00			Slope	0.00
		Too acid	0.46			Too acid	0.95
BOC:							
Bice, stony---------	75	Poor		Good		Fair	
		Low content of organic matter	0.00			Too acid	0.88
		Too acid	0.20			Rock fragments	0.92
						Slope	0.96
BOE:							
Bice, stony---------	75	Poor		Poor		Poor	
		Low content of organic matter	0.00	Slope	0.00	Slope	0.00
		Too acid	0.20			Too acid	0.88
						Rock fragments	0.92
BPC:							
Bice, stony---------	50	Poor		Good		Fair	
		Low content of organic matter	0.00			Too acid	0.88
		Too acid	0.20			Rock fragments	0.92
						Slope	0.96
Woodstock, stony----	40	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Rock fragments	0.88
		Droughty	0.00			Too acid	0.95
		Too acid	0.46			Slope	0.96
BPE:							
Bice, stony---------	50	Poor		Poor		Poor	
		Low content of organic matter	0.00	Slope	0.00	Slope	0.00
		Too acid	0.20			Too acid	0.88
						Rock fragments	0.92

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BPE:							
Woodstock, stony	40	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Slope	0.00	Slope	0.00
		Droughty	0.00			Rock fragments	0.88
		Too acid	0.46			Too acid	0.95
BtB:							
Broadalbin	70	Fair		Poor		Fair	
		Low content of organic matter	0.50	Depth to cemented pan	0.00	Depth to saturated zone	0.44
		Depth to cemented pan	0.54	Depth to saturated zone	0.44	Hard to reclaim	0.54
		Droughty	0.58			Depth to cemented pan	0.54
		No water erosion limitation	0.99			Rock fragments	0.92
		Too acid	0.99				
BtC:							
Broadalbin	70	Fair		Poor		Fair	
		Low content of organic matter	0.50	Depth to cemented pan	0.00	Depth to saturated zone	0.44
		Depth to cemented pan	0.54	Depth to saturated zone	0.44	Hard to reclaim	0.54
		Droughty	0.58			Depth to cemented pan	0.54
		No water erosion limitation	0.99			Slope	0.84
		Too acid	0.99			Rock fragments	0.92
BtD:							
Broadalbin	70	Fair		Poor		Poor	
		Low content of organic matter	0.50	Depth to cemented pan	0.00	Slope	0.00
		Depth to cemented pan	0.54	Depth to saturated zone	0.44	Depth to saturated zone	0.44
		Droughty	0.58	Slope	0.50	Hard to reclaim	0.54
		No water erosion limitation	0.99			Depth to cemented pan	0.54
		Too acid	0.99			Rock fragments	0.92
BvB:							
Broadalbin	50	Fair		Poor		Fair	
		Low content of organic matter	0.50	Depth to cemented pan	0.00	Depth to saturated zone	0.44
		Depth to cemented pan	0.54	Depth to saturated zone	0.44	Hard to reclaim	0.54
		Droughty	0.58			Depth to cemented pan	0.54
		No water erosion limitation	0.99			Rock fragments	0.92
		Too acid	0.99				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BvB:							
Manlius	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.00			Hard to reclaim	0.01
		Depth to bedrock	0.10			Depth to bedrock	0.10
		Too acid	0.32			Too acid	0.95
Nassau	15	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00			Depth to bedrock	0.00
		Low content of organic matter	0.00			Too acid	0.95
		Too acid	0.46				
BvC:							
Broadalbin	50	Fair		Poor		Fair	
		Low content of organic matter	0.50	Depth to cemented pan	0.00	Depth to saturated zone	0.44
		Depth to cemented pan	0.54	Depth to saturated zone	0.44	Hard to reclaim	0.54
		Droughty	0.58			Depth to cemented pan	0.54
		No water erosion limitation	0.99			Slope	0.84
		Too acid	0.99			Rock fragments	0.92
Manlius	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.00			Hard to reclaim	0.01
		Depth to bedrock	0.10			Depth to bedrock	0.10
		Too acid	0.32			Slope	0.37
						Too acid	0.95
Nassau	15	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00			Depth to bedrock	0.00
		Low content of organic matter	0.00			Slope	0.37
		Too acid	0.46			Too acid	0.95
BvD:							
Broadalbin	50	Fair		Poor		Poor	
		Low content of organic matter	0.50	Depth to cemented pan	0.00	Slope	0.00
		Depth to cemented pan	0.54	Depth to saturated zone	0.44	Depth to saturated zone	0.44
		Droughty	0.58	Slope	0.82	Hard to reclaim	0.54
		No water erosion limitation	0.99			Depth to cemented pan	0.54
		Too acid	0.99			Rock fragments	0.92

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BvD:							
Manlius-------------	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.00	Slope	0.50	Slope	0.00
		Depth to bedrock	0.10			Hard to reclaim	0.01
		Too acid	0.32			Depth to bedrock	0.10
						Too acid	0.95
Nassau--------------	15	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00	Slope	0.50	Depth to bedrock	0.00
		Low content of organic matter	0.00			Slope	0.00
		Too acid	0.46			Too acid	0.95
BxB:							
Burdett-------------	75	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Hard to reclaim	0.00
		Too acid	0.97			Rock fragments	0.00
		No water erosion limitation	0.99			Depth to saturated zone	0.00
						Hard to reclaim	0.08
CcB:							
Charlton------------	80	Poor		Good		Fair	
		Low content of organic matter	0.00			Rock fragments	0.50
		Too acid	0.46			Hard to reclaim	0.92
CcC:							
Charlton------------	80	Poor		Good		Fair	
		Low content of organic matter	0.00			Slope	0.37
		Too acid	0.46			Rock fragments	0.50
						Hard to reclaim	0.92
CcD:							
Charlton------------	80	Poor		Fair		Poor	
		Low content of organic matter	0.00	Slope	0.50	Slope	0.00
		Too acid	0.46			Rock fragments	0.50
						Hard to reclaim	0.92
CeB:							
Chatfield, undulating---------	50	Poor		Poor		Fair	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.10
		Depth to bedrock	0.10			Rock fragments	0.92
		Droughty	0.10			Too acid	0.95
		Too acid	0.12				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
CeB:							
Hollis, undulating--	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Rock fragments	0.50
		Droughty	0.00			Too acid	0.95
		Too acid	0.20				
CeC:							
Chatfield, rolling--	50	Poor		Poor		Fair	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.10
		Depth to bedrock	0.10			Slope	0.37
		Droughty	0.10			Rock fragments	0.92
		Too acid	0.12			Too acid	0.95
Hollis, rolling-----	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Slope	0.37
		Droughty	0.00			Rock fragments	0.50
		Too acid	0.20			Too acid	0.95
CfD:							
Chatfield, hilly----	50	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.10	Slope	0.50	Depth to bedrock	0.10
		Droughty	0.10			Rock fragments	0.92
		Too acid	0.12			Too acid	0.95
Hollis, hilly-------	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Slope	0.50	Slope	0.00
		Droughty	0.00			Rock fragments	0.50
		Too acid	0.20			Too acid	0.95
Cg:							
Cheektowaga---------	70	Poor		Poor		Poor	
		Droughty	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
ChB:							
Chenango, loamy substratum---------	85	Poor		Good		Poor	
		Low content of organic matter	0.00			Rock fragments	0.00
		Too acid	0.46			Hard to reclaim	0.00
ChC:							
Chenango, loamy subtratum----------	85	Poor		Good		Poor	
		Low content of organic matter	0.00			Rock fragments	0.00
		Too acid	0.46			Hard to reclaim	0.00
						Slope	0.37

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
ClA:							
Claverack-----------	70	Poor		Fair		Fair	
		Droughty	0.00	Depth to saturated zone	0.32	Too sandy	0.22
		Low content of organic matter	0.08			Depth to saturated zone	0.32
		Too sandy	0.22				
		Too acid	0.46				
ClB:							
Claverack-----------	70	Poor		Fair		Fair	
		Droughty	0.00	Depth to saturated zone	0.32	Too sandy	0.22
		Low content of organic matter	0.08			Depth to saturated zone	0.32
		Too sandy	0.22				
		Too acid	0.46				
COC:							
Colton--------------	90	Poor		Good		Poor	
		Droughty	0.00			Hard to reclaim	0.00
		Too acid	0.01			Rock fragments	0.00
						Too acid	0.76
						Slope	0.96
COE:							
Colton--------------	90	Poor		Poor		Poor	
		Droughty	0.00	Slope	0.00	Hard to reclaim	0.00
		Too acid	0.01			Slope	0.00
						Rock fragments	0.00
						Too acid	0.76
Cs:							
Cosad---------------	70	Poor		Poor		Poor	
		Droughty	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.00			Too sandy	0.22
		Too sandy	0.22				
		Too acid	0.74				
DeA:							
Deerfield-----------	75	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.76	Depth to saturated zone	0.76
		Too acid	0.46			Too acid	0.95
		Droughty	0.49				
DeB:							
Deerfield, undulating---------	75	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.76	Depth to saturated zone	0.76
		Too acid	0.46			Too acid	0.95
		Droughty	0.49				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
ElB:							
Elmridge------------	70	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Droughty	0.02				
		Water erosion	0.90				
		Too acid	0.97				
FaB:							
Farmington, rocky---	75	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00				
FcC:							
Farmington, very rocky--------------	70	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Slope	0.96
Fl:							
Fluvaquents, frequently flooded-	60	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.88			Rock fragments	0.00
						Hard to reclaim	0.08
FU:							
Fluvaquents, flooded	55	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.88			Rock fragments	0.00
						Hard to reclaim	0.08
Udipsamments--------	25	Fair		Good		Fair	
		Too acid	0.12			Too sandy	0.22
		Too sandy	0.22			Too acid	0.88
		Droughty	0.43				
		Low content of organic matter	0.50				
GaB:							
Galway--------------	65	Fair		Poor		Fair	
		Low content of organic matter	0.08	Depth to bedrock	0.00	Depth to bedrock	0.54
		Droughty	0.50	Depth to saturated zone	0.80	Depth to saturated zone	0.80
		Depth to bedrock	0.54			Rock fragments	0.92
		Too acid	0.84				
GaC:							
Galway--------------	70	Fair		Poor		Fair	
		Low content of organic matter	0.08	Depth to bedrock	0.00	Slope	0.37
		Droughty	0.50	Depth to saturated zone	0.80	Depth to bedrock	0.54
		Depth to bedrock	0.54			Depth to saturated zone	0.80
		Too acid	0.84			Rock fragments	0.92

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
HcA:							
Hinckley	80	Poor		Good		Poor	
		Low content of organic matter	0.00			Rock fragments	0.00
		Droughty	0.06			Hard to reclaim	0.00
		Too acid	0.46			Too acid	0.99
HcB:							
Hinckley, undulating	80	Poor		Good		Poor	
		Low content of organic matter	0.00			Rock fragments	0.00
		Droughty	0.06			Hard to reclaim	0.00
		Too acid	0.46			Too acid	0.99
HcC:							
Hinckley, rolling	80	Poor		Good		Poor	
		Low content of organic matter	0.00			Rock fragments	0.00
		Droughty	0.06			Hard to reclaim	0.00
		Too acid	0.46			Slope	0.37
						Too acid	0.99
HcD:							
Hinckley, hilly	80	Poor		Fair		Poor	
		Low content of organic matter	0.00	Slope	0.50	Slope	0.00
		Droughty	0.06			Rock fragments	0.00
		Too acid	0.46			Hard to reclaim	0.00
						Too acid	0.99
HoA:							
Hoosic	70	Poor		Good		Poor	
		Low content of organic matter	0.00			Hard to reclaim	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.46			Too acid	0.99
HoB:							
Hoosic, undulating	70	Poor		Good		Poor	
		Low content of organic matter	0.00			Hard to reclaim	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.46			Too acid	0.99
HoC:							
Hoosic, rolling	70	Poor		Good		Poor	
		Low content of organic matter	0.00			Hard to reclaim	0.00
		Droughty	0.00			Rock fragments	0.00
		Too acid	0.46			Slope	0.37
						Too acid	0.99

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
HuB:							
Hudson--------------	70	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Too Clayey	0.00
		Too clayey	0.00	Shrink-swell	0.87	Depth to saturated zone	0.32
		Water erosion	0.68				
		Droughty	0.85				
		Too acid	0.97				
HuC:							
Hudson--------------	70	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Too Clayey	0.00
		Too clayey	0.00	Shrink-swell	0.87	Depth to saturated zone	0.32
		Water erosion	0.68			Slope	0.37
		Droughty	0.85				
		Too acid	0.97				
HuD:							
Hudson, hilly-------	70	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Slope	0.00
		Too clayey	0.00	Slope	0.50	Too Clayey	0.00
		Water erosion	0.68	Shrink-swell	0.87	Depth to saturated zone	0.32
		Droughty	0.85				
		Too acid	0.97				
HuE:							
Hudson--------------	70	Poor		Poor		Poor	
		Low content of organic matter	0.00	Slope	0.00	Slope	0.00
		Too clayey	0.00	Depth to saturated zone	0.32	Too Clayey	0.00
		Water erosion	0.68	Shrink-swell	0.87	Depth to saturated zone	0.32
		Droughty	0.85				
		Too acid	0.97				
In:							
Ilion---------------	90	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Hard to reclaim	0.00
		No water erosion limitation	0.99			Depth to saturated zone	0.00
						Hard to reclaim	0.68
Lm:							
Limerick------------	50	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Water erosion	0.68				
		Too acid	0.99				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Lm:							
Saco	40	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.46				
		Water erosion	0.68				
LY:							
Lyme, very stony	80	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.20			Rock fragments	0.92
						Too acid	0.95
Ma:							
Madalin	80	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too clayey	0.00	Shrink-swell	0.87	Too Clayey	0.00
		No water erosion limitation	0.99				
MnB:							
Manlius, undulating	50	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.00			Hard to reclaim	0.01
		Depth to bedrock	0.10			Depth to bedrock	0.10
		Too acid	0.32			Too acid	0.95
Nassau	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00			Depth to bedrock	0.00
		Low content of organic matter	0.00			Too acid	0.95
		Too acid	0.46				
MnC:							
Manlius, rolling	50	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.00			Hard to reclaim	0.01
		Depth to bedrock	0.10			Depth to bedrock	0.10
		Too acid	0.32			Slope	0.37
						Too acid	0.95
Nassau	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00			Depth to bedrock	0.00
		Low content of organic matter	0.00			Slope	0.37
		Too acid	0.46			Too acid	0.95

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
MnD:							
Manlius, hilly------	50	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Droughty	0.00	Slope	0.50	Slope	0.00
		Too acid	0.32			Hard to reclaim	0.01
		Depth to bedrock	0.54			Depth to bedrock	0.54
						Too acid	0.95
Nassau--------------	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00	Slope	0.50	Depth to bedrock	0.00
		Low content of organic matter	0.00			Slope	0.00
		Too acid	0.46			Too acid	0.95
Ms:							
Massena-------------	70	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.04	Depth to saturated zone	0.04
		Too acid	0.97			Hard to reclaim	0.20
						Not hard to reclaim	0.99
MvA:							
Mosherville---------	75	Poor		Poor		Poor	
		Depth to cemented pan	0.00	Depth to cemented pan	0.00	Hard to reclaim	0.00
		Droughty	0.00	Depth to saturated zone	0.06	Depth to cemented pan	0.00
		Too acid	0.97			Depth to saturated zone	0.06
		No water erosion limitation	0.99				
MvB:							
Mosherville---------	75	Poor		Poor		Poor	
		Depth to cemented pan	0.00	Depth to cemented pan	0.00	Hard to reclaim	0.00
		Droughty	0.00	Depth to saturated zone	0.06	Depth to cemented pan	0.00
		Too acid	0.97			Depth to saturated zone	0.06
		No water erosion limitation	0.99				
MxB:							
Mosherville---------	50	Poor		Poor		Poor	
		Depth to cemented pan	0.00	Depth to cemented pan	0.00	Hard to reclaim	0.00
		Droughty	0.00	Depth to saturated zone	0.06	Depth to cemented pan	0.00
		Too acid	0.97			Depth to saturated zone	0.06
		No water erosion limitation	0.99				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
MxB:							
Hornell, undulating-	40	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too Clayey	0.00
		Droughty	0.00	Depth to saturated zone	0.00	Rock fragments	0.00
		Low content of organic matter	0.08	Shrink-swell	0.87	Depth to saturated zone	0.00
		Depth to bedrock	0.10			Depth to bedrock	0.10
		Too acid	0.61				
		No water erosion limitation	0.99				
NaC:							
Nassau, rolling-----	60	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00			Depth to bedrock	0.00
		Low content of organic matter	0.00			Slope	0.37
		Too acid	0.46			Too acid	0.95
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
NaD:							
Nassau, hilly-------	60	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00	Slope	0.50	Depth to bedrock	0.00
		Low content of organic matter	0.00			Slope	0.00
		Too acid	0.46			Too acid	0.95
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
Ne:							
Newstead------------	70	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to saturated zone	0.00
		Droughty	0.00	Depth to saturated zone	0.00	Depth to bedrock	0.05
		Depth to bedrock	0.05			Rock fragments	0.50
NuB:							
Nunda---------------	80	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.14	Rock fragments	0.00
		Droughty	0.43			Depth to saturated zone	0.14
		Too acid	0.61			Hard to reclaim	0.71
		No water erosion limitation	0.99				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
NuC:							
Nunda	70	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.14	Rock fragments	0.00
		Droughty	0.43			Depth to saturated zone	0.14
		Too acid	0.61			Slope	0.37
		No water erosion limitation	0.99			Hard to reclaim	0.71
OaA:							
Oakville	70	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.78
		Low content of organic matter	0.00				
		Too sandy	0.78				
		Too acid	0.97				
OaB:							
Oakville, undulating	70	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.78
		Low content of organic matter	0.00				
		Too sandy	0.78				
		Too acid	0.97				
OaC:							
Oakville, rolling	70	Poor		Good		Fair	
		Wind erosion	0.00			Slope	0.37
		Low content of organic matter	0.00			Too sandy	0.78
		Too sandy	0.78				
		Too acid	0.97				
OaD:							
Oakville, hilly	70	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Low content of organic matter	0.00			Too sandy	0.78
		Too sandy	0.78				
		Too acid	0.97				
OeE:							
Oakville	40	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Low content of organic matter	0.00			Too sandy	0.78
		Too sandy	0.78				
		Too acid	0.97				
Windsor	40	Poor		Poor		Poor	
		Low content of organic matter	0.00	Slope	0.00	Slope	0.00
		Too acid	0.32			Too sandy	0.78
		Too sandy	0.78			Too acid	0.99

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Pm:							
Palms	70	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.00			Content of organic matter	0.00
		No water erosion limitation	0.99				
Pp:							
Palms, ponded	85	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.00			Content of organic matter	0.00
		No water erosion limitation	0.99				
PtB:							
Paxton	70	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.86	Rock fragments	0.00
		Droughty	0.27			Hard to reclaim	0.65
		Too acid	0.61			Depth to saturated zone	0.86
PtC:							
Paxton	70	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.86	Rock fragments	0.00
		Droughty	0.27			Slope	0.37
		Too acid	0.61			Hard to reclaim	0.65
						Depth to saturated zone	0.86
Pu:							
Pits, Quarry	80	Not rated		Not rated		Not rated	
Pv:							
Pits, Sand And Gravel	80	Not rated		Not rated		Not rated	
PwA:							
Pittstown	80	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.14	Rock fragments	0.00
		Droughty	0.31			Hard to reclaim	0.05
		Too acid	0.74			Depth to saturated zone	0.14
		No water erosion limitation	0.99				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PwB:							
Pittstown-----------	80	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.14	Rock fragments	0.00
		Droughty	0.31			Hard to reclaim	0.05
		Too acid	0.74			Depth to saturated zone	0.14
		No water erosion limitation	0.99				
Ra:							
Raynham-------------	60	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.04	Depth to saturated zone	0.04
		Water erosion	0.06				
RhA:							
Rhinebeck-----------	70	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Too Clayey	0.00
		Too clayey	0.00	Shrink-swell	0.87	Depth to saturated zone	0.00
		Water erosion	0.68				
		Too acid	0.92				
RhB:							
Rhinebeck-----------	70	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Too Clayey	0.00
		Too clayey	0.00	Shrink-swell	0.87	Depth to saturated zone	0.00
		Water erosion	0.68				
		Too acid	0.92				
Sa:							
Scarboro------------	70	Poor		Poor		Poor	
		Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
		Low content of organic matter	0.00			Depth to saturated zone	0.00
		Too acid	0.74				
SCB:							
Schroon, stony------	80	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Depth to saturated zone	0.32
		Too acid	0.05			Too acid	0.95
SeA:							
Scio----------------	70	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Depth to saturated zone	0.32
		Too acid	0.68				
		Water erosion	0.68				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
SeB:							
Scio	70	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.32	Depth to saturated zone	0.32
		Too acid	0.68				
		Water erosion	0.68				
Sh:							
Shaker	70	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Water erosion	0.90	Shrink-swell	0.99		
SKB:							
Skerry, very stony	70	Poor		Fair		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.18	Rock fragments	0.00
		Too acid	0.12			Depth to saturated zone	0.18
		Droughty	0.44			Too acid	0.88
Sn:							
Sun	70	Fair		Poor		Poor	
		Low content of organic matter	0.50	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Too acid	0.61			Hard to reclaim	0.00
StA:							
Sutton	70	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.53	Depth to saturated zone	0.53
		Too acid	0.74				
StB:							
Sutton	70	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.53	Depth to saturated zone	0.53
		Too acid	0.74				
Te:							
Teel	70	Fair		Fair		Fair	
		Low content of organic matter	0.50	Depth to saturated zone	0.14	Depth to saturated zone	0.14
		Too acid	0.61			Too acid	0.99
		Water erosion	0.68				
Tg:							
Tioga	80	Fair		Good		Good	
		Low content of organic matter	0.50				
		No water erosion limitation	0.99				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
TNC:							
Tunbridge, very bouldery-----------	50	Poor		Poor		Fair	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.46
		Too acid	0.01			Too acid	0.95
		Depth to bedrock	0.46			Slope	0.96
		Droughty	0.82			Rock fragments	0.98
Lyman, very bouldery	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Too acid	0.76
		Droughty	0.00			Slope	0.96
		Too acid	0.05				
TNE:							
Tunbridge, very bouldery-----------	50	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.01	Slope	0.00	Depth to bedrock	0.46
		Depth to bedrock	0.46			Too acid	0.95
		Droughty	0.82			Rock fragments	0.98
Lyman, very bouldery	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Slope	0.00	Slope	0.00
		Droughty	0.00			Too acid	0.76
		Too acid	0.05				
TNF:							
Tunbridge, very bouldery-----------	50	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.01	Slope	0.00	Depth to bedrock	0.46
		Depth to bedrock	0.46			Too acid	0.95
		Droughty	0.82			Rock fragments	0.98
Lyman, very bouldery	30	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Droughty	0.00			Too acid	0.76
		Too acid	0.05				
Ud:							
Udipsamments, dredged------------	90	Fair		Good		Fair	
		Too acid	0.12			Too sandy	0.22
		Too sandy	0.22			Too acid	0.88
		Droughty	0.43				
		Low content of organic matter	0.50				

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Ue:							
Udorthents, smoothed	80	Poor		Good		Poor	
		Low content of organic matter	0.00			Hard to reclaim	0.00
		Too acid	0.61			Rock fragments	0.50
		No water erosion limitation	0.99				
UnB:							
Unadilla------------	70	Fair		Good		Fair	
		Water erosion	0.06			Too acid	0.95
		Low content of organic matter	0.08				
		Too acid	0.20				
UnC:							
Unadilla------------	70	Fair		Good		Fair	
		Water erosion	0.06			Slope	0.37
		Low content of organic matter	0.08			Too acid	0.95
		Too acid	0.20				
W:							
Water---------------	100	Not rated		Not rated		Not rated	
Wa:							
Wareham-------------	70	Poor		Poor		Poor	
		Too sandy	0.00	Depth to saturated zone	0.00	Too sandy	0.00
		Low content of organic matter	0.00			Depth to saturated zone	0.00
		Too acid	0.12			Too acid	0.95
WnA:							
Windsor-------------	80	Poor		Good		Fair	
		Low content of organic matter	0.00			Too sandy	0.78
		Too acid	0.32			Too acid	0.99
		Too sandy	0.78				
WnB:							
Windsor, undulating-	80	Poor		Good		Fair	
		Low content of organic matter	0.00			Too sandy	0.78
		Too acid	0.32			Too acid	0.99
		Too sandy	0.78				
WnC:							
Windsor, rolling----	75	Poor		Good		Fair	
		Low content of organic matter	0.00			Slope	0.37
		Too acid	0.32			Too sandy	0.78
		Too sandy	0.78			Too acid	0.99

Table 19.--Construction Materials, Part II--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WnD:							
Windsor, hilly------	75	Poor		Fair		Poor	
		Low content of organic matter	0.00	Slope	0.50	Slope	0.00
		Too acid	0.32			Too sandy	0.78
		Too sandy	0.78			Too acid	0.99
WO:							
Wonsqueak, ponded---	70	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.50			Content of organic matter	0.00
WrB:							
Woodbridge----------	70	Poor		Fair		Fair	
		Low content of organic matter	0.00	Depth to saturated zone	0.53	Hard to reclaim	0.20
		Droughty	0.06			Depth to saturated zone	0.53
		Too acid	0.20			Too acid	0.95
						Rock fragments	0.98

Table 20.--Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
ALA:							
Allagash	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.12	Deep to water	1.00
ALC:							
Allagash	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.12	Deep to water	1.00
ALE:							
Allagash	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.12	Deep to water	1.00
		Slope	0.40				
As:							
Allis	80	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.26	Depth to saturated zone	1.00	Slow refill	1.00
				Thin layer	0.96	Cutbanks cave	0.10
				Piping	0.50		
BCC:							
Becket, very bouldery	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.82	Deep to water	1.00
				Thin layer	0.81		
				Seepage	0.06		
BCE:							
Becket, very bouldery	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.82	Deep to water	1.00
		Slope	0.32	Thin layer	0.81		
				Seepage	0.06		
BEC:							
Becket, very bouldery	40	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.82	Deep to water	1.00
				Thin layer	0.81		
				Seepage	0.06		
Tunbridge, very bouldery	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.88	Deep to water	1.00
		Depth to bedrock	0.88	Seepage	0.07		

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
BEE:							
Becket, very bouldery-----------	40	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.82	Deep to water	1.00
		Slope	0.32	Thin layer	0.81		
				Seepage	0.06		
Tunbridge, very bouldery-----------	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.88	Deep to water	1.00
		Depth to bedrock	0.88	Seepage	0.07		
		Slope	0.32				
BHC:							
Berkshire, very bouldery-----------	70	Very limited		Not limited		Very limited	
		Seepage	1.00			Deep to water	1.00
BHE:							
Berkshire, very bouldery-----------	70	Very limited		Not limited		Very limited	
		Seepage	1.00			Deep to water	1.00
		Slope	0.32				
BLC:							
Berkshire, very bouldery-----------	40	Very limited		Not limited		Very limited	
		Seepage	1.00			Deep to water	1.00
Tunbridge, very bouldery-----------	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.88	Deep to water	1.00
		Depth to bedrock	0.88	Seepage	0.07		
BLE:							
Berkshire, very bouldery-----------	40	Very limited		Not limited		Very limited	
		Seepage	1.00			Deep to water	1.00
		Slope	0.32				
Tunbridge, very bouldery-----------	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.88	Deep to water	1.00
		Depth to bedrock	0.88	Seepage	0.07		
		Slope	0.32				
BmB:							
Bernardston---------	85	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.95		
BmC:							
Bernardston---------	85	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.95		

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BmD:							
Bernardston---------	85	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
		Slope	0.12	Thin layer	0.95		
BnB:							
Bernardston---------	50	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.95		
Manlius-------------	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.98	Thin layer	0.98	Deep to water	1.00
		Seepage	0.70				
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
BnC:							
Bernardston---------	50	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
		Slope	0.01	Thin layer	0.95		
Manlius-------------	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.98	Thin layer	0.98	Deep to water	1.00
		Seepage	0.70				
		Slope	0.01				
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.01				
BnD:							
Bernardston---------	50	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
		Slope	0.12	Thin layer	0.95		
Manlius-------------	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.98	Thin layer	0.98	Deep to water	1.00
		Seepage	0.70				
		Slope	0.12				
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.12				
BOC:							
Bice, stony---------	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.03	Deep to water	1.00
BOE:							
Bice, stony---------	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.03	Deep to water	1.00
		Slope	0.32				

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
BPC:							
Bice, stony	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.03	Deep to water	1.00
Woodstock, stony	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
				Seepage	0.08		
BPE:							
Bice, stony	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.03	Deep to water	1.00
		Slope	0.32				
Woodstock, stony	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.32	Seepage	0.08		
BtB:							
Broadalbin	70	Somewhat limited		Very limited		Very limited	
		Depth to cemented pan	0.86	Depth to saturated zone	1.00	Deep to water	1.00
		Seepage	0.70	Piping	1.00		
				Thin layer	0.86		
BtC:							
Broadalbin	70	Somewhat limited		Very limited		Very limited	
		Depth to cemented pan	0.86	Depth to saturated zone	1.00	Deep to water	1.00
		Seepage	0.70	Piping	1.00		
				Thin layer	0.86		
BtD:							
Broadalbin	70	Somewhat limited		Very limited		Very limited	
		Depth to cemented pan	0.86	Depth to saturated zone	1.00	Deep to water	1.00
		Seepage	0.70	Piping	1.00		
		Slope	0.12	Thin layer	0.86		
BvB:							
Broadalbin	50	Somewhat limited		Very limited		Very limited	
		Depth to cemented pan	0.86	Depth to saturated zone	1.00	Deep to water	1.00
		Seepage	0.70	Piping	1.00		
				Thin layer	0.86		
Manlius	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.98	Thin layer	0.98	Deep to water	1.00
		Seepage	0.70				
Nassau	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BvC:							
Broadalbin----------	50	Somewhat limited		Very limited		Very limited	
		Depth to cemented pan	0.86	Depth to saturated zone	1.00	Deep to water	1.00
		Seepage	0.70	Piping	1.00		
				Thin layer	0.86		
Manlius-------------	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.98	Thin layer	0.98	Deep to water	1.00
		Seepage	0.70				
		Slope	0.01				
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.01				
BvD:							
Broadalbin----------	50	Somewhat limited		Very limited		Very limited	
		Depth to cemented pan	0.86	Depth to saturated zone	1.00	Deep to water	1.00
		Seepage	0.70	Piping	1.00		
		Slope	0.08	Thin layer	0.86		
Manlius-------------	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.98	Thin layer	0.98	Deep to water	1.00
		Seepage	0.70				
		Slope	0.12				
Nassau--------------	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.12				
BxB:							
Burdett-------------	75	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Deep to water	1.00
CcB:							
Charlton------------	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Deep to water	1.00
CcC:							
Charlton------------	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Deep to water	1.00
		Slope	0.01				
CcD:							
Charlton------------	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Deep to water	1.00
		Slope	0.12				
CeB:							
Chatfield, undulating---------	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Deep to water	1.00
		Depth to bedrock	0.98	Thin layer	0.98		
Hollis, undulating--	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
CeC:							
Chatfield, rolling--	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Deep to water	1.00
		Depth to bedrock	0.98	Thin layer	0.98		
		Slope	0.01				
Hollis, rolling-----	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.01				
CfD:							
Chatfield, hilly----	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Deep to water	1.00
		Depth to bedrock	0.98	Thin layer	0.98		
		Slope	0.12				
Hollis, hilly-------	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.12				
Cg:							
Cheektowaga---------	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Deep to water	1.00
				Depth to saturated zone	1.00		
				Thin layer	1.00		
ChB:							
Chenango, loamy substratum---------	85	Very limited		Not limited		Very limited	
		Seepage	1.00			Deep to water	1.00
ChC:							
Chenango, loamy subtratum----------	85	Very limited		Not limited		Very limited	
		Seepage	1.00			Deep to water	1.00
		Slope	0.01				
ClA:							
Claverack-----------	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.93		
				Seepage	0.12		
ClB:							
Claverack-----------	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.93		
				Seepage	0.12		
CoC:							
Colton--------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Deep to water	1.00

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
COE:							
Colton	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Deep to water	1.00
		Slope	0.32				
Cs:							
Cosad	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.93		
				Seepage	0.22		
DeA:							
Deerfield	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.95	Cutbanks cave	1.00
				Seepage	0.12	Deep to water	0.02
DeB:							
Deerfield, undulating	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.95	Cutbanks cave	1.00
				Seepage	0.12	Deep to water	0.02
ElB:							
Elmridge	70	Not limited		Very limited		Very limited	
				Thin layer	1.00	Deep to water	1.00
				Depth to saturated zone	1.00		
				Piping	1.00		
FaB:							
Farmington, rocky	75	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
				Piping	1.00		
FcC:							
Farmington, very rocky	70	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
				Piping	1.00		
Fl:							
Fluvaquents, frequently flooded	60	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.10		
FU:							
Fluvaquents, flooded	55	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.10		
Udipsamments	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.22	Deep to water	1.00

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GaB:							
Galway	65	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.86	Piping	1.00	Depth to hard bedrock	1.00
		Seepage	0.70	Depth to saturated zone	0.93	Slow refill	0.30
				Thin layer	0.86	Cutbanks cave	0.10
						Deep to water	0.03
GaC:							
Galway	70	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.86	Piping	1.00	Depth to hard bedrock	1.00
		Seepage	0.70	Depth to saturated zone	0.93	Slow refill	0.30
		Slope	0.01	Thin layer	0.86	Cutbanks cave	0.10
						Deep to water	0.03
HcA:							
Hinckley	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Deep to water	1.00
HcB:							
Hinckley, undulating	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Deep to water	1.00
HcC:							
Hinckley, rolling	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Deep to water	1.00
		Slope	0.01				
HcD:							
Hinckley, hilly	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.01	Deep to water	1.00
		Slope	0.12				
HoA:							
Hoosic	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.03	Deep to water	1.00
HoB:							
Hoosic, undulating	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.03	Deep to water	1.00
HoC:							
Hoosic, rolling	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.03	Deep to water	1.00
		Slope	0.01				
HuB:							
Hudson	70	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.81		
				Hard to pack	0.12		

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HuC:							
Hudson--------------	70	Somewhat limited		Very limited		Very limited	
		Slope	0.01	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.81		
				Hard to pack	0.12		
HuD:							
Hudson, hilly-------	70	Somewhat limited		Very limited		Very limited	
		Slope	0.12	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.81		
				Hard to pack	0.12		
HuE:							
Hudson--------------	70	Somewhat limited		Very limited		Very limited	
		Slope	0.50	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.81		
				Hard to pack	0.12		
In:							
Ilion---------------	90	Not limited		Very limited		Somewhat limited	
				Depth to saturated zone	1.00	Slow refill	0.47
				Piping	1.00	Cutbanks cave	0.10
Lm:							
Limerick------------	50	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00	Slow refill	0.30
				Seepage	0.12		
Saco----------------	40	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00	Slow refill	0.30
LY:							
Lyme, very stony----	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.10		
Ma:							
Madalin-------------	80	Not limited		Very limited		Very limited	
				Ponding	1.00	Slow refill	1.00
				Depth to saturated zone	1.00	Cutbanks cave	0.10
MnB:							
Manlius, undulating-	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.98	Thin layer	0.98	Deep to water	1.00
		Seepage	0.70				
Nassau--------------	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
MnC:							
Manlius, rolling	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.98	Thin layer	0.98	Deep to water	1.00
		Seepage	0.70				
		Slope	0.01				
Nassau	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.01				
MnD:							
Manlius, hilly	50	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.86	Thin layer	0.86	Deep to water	1.00
		Seepage	0.70				
		Slope	0.12				
Nassau	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.12				
Ms:							
Massena	70	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.11	Depth to saturated zone	1.00	Slow refill	0.89
				Seepage	0.01	Cutbanks cave	0.10
MvA:							
Mosherville	75	Very limited		Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	1.00		
				Piping	1.00		
MvB:							
Mosherville	75	Very limited		Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	1.00		
				Piping	1.00		
MxB:							
Mosherville	50	Very limited		Very limited		Very limited	
		Depth to cemented pan	1.00	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	1.00		
				Piping	1.00		
Hornell, undulating	40	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.98	Depth to saturated zone	1.00	Depth to hard bedrock	1.00
				Thin layer	0.98	Slow refill	1.00
						Cutbanks cave	0.10

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
NaC:							
Nassau, rolling-----	60	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.01				
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
NaD:							
Nassau, hilly-------	60	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.12				
Rock Outcrop--------	20	Not rated		Not rated		Not rated	
Ne:							
Newstead------------	70	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.99	Depth to saturated zone	1.00	Deep to water	1.00
		Seepage	0.70	Thin layer	0.99		
NuB:							
Nunda---------------	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.03	Depth to saturated zone	1.00	Deep to water	1.00
				Piping	1.00		
				Thin layer	0.81		
NuC:							
Nunda---------------	70	Somewhat limited		Very limited		Very limited	
		Seepage	0.03	Depth to saturated zone	1.00	Deep to water	1.00
		Slope	0.01	Piping	1.00		
				Thin layer	0.81		
OaA:							
Oakville------------	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.46	Cutbanks cave	1.00
				Seepage	0.12	Deep to water	0.24
OaB:							
Oakville, undulating	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.12	Deep to water	1.00
OaC:							
Oakville, rolling---	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.12	Deep to water	1.00
		Slope	0.01				
OaD:							
Oakville, hilly-----	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.12	Deep to water	1.00
		Slope	0.12				

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
OeE:							
Oakville	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.12	Deep to water	1.00
		Slope	0.50				
Windsor	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.90	Deep to water	1.00
		Slope	0.50				
Pm:							
Palms	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.06		
Pp:							
Palms, ponded	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.06		
PtB:							
Paxton	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.89	Deep to water	1.00
				Thin layer	0.83		
				Seepage	0.06		
PtC:							
Paxton	70	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.89	Deep to water	1.00
		Slope	0.01	Thin layer	0.83		
				Seepage	0.06		
Pu:							
Pits, Quarry	80	Not rated		Not rated		Not rated	
Pv:							
Pits, Sand And Gravel	80	Not rated		Not rated		Not rated	
PwA:							
Pittstown	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.99		
PwB:							
Pittstown	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.99		

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Ra:							
Raynham	60	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.53	Depth to saturated zone	1.00	Cutbanks cave	0.50
				Piping	1.00	Slow refill	0.47
RhA:							
Rhinebeck	70	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Deep to water	1.00
RhB:							
Rhinebeck	70	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Deep to water	1.00
Sa:							
Scarboro	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.50		
SCB:							
Schroon, stony	80	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.08	Slow refill	0.30
SeA:							
Scio	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
SeB:							
Scio	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Piping	1.00		
Sh:							
Shaker	70	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.79		
SKB:							
Skerry, very stony	70	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.95		
				Seepage	0.06		
Sn:							
Sun	70	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Ponding	1.00	Cutbanks cave	1.00
				Depth to saturated zone	1.00		
				Seepage	0.03		

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
StA:							
Sutton	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.07	Deep to water	0.01
StB:							
Sutton	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.07	Deep to water	0.01
Te:							
Teel	70	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
				Piping	1.00	Cutbanks cave	0.10
Tg:							
Tioga	80	Very limited		Somewhat limited		Somewhat limited	
		Seepage	1.00	Seepage	0.01	Deep to water	0.96
						Cutbanks cave	0.10
TNC:							
Tunbridge, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.88	Deep to water	1.00
		Depth to bedrock	0.88	Seepage	0.07		
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
				Seepage	0.08		
TNE:							
Tunbridge, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.88	Deep to water	1.00
		Depth to bedrock	0.88	Seepage	0.07		
		Slope	0.32				
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.32	Seepage	0.08		
TNF:							
Tunbridge, very bouldery	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.88	Deep to water	1.00
		Depth to bedrock	0.88	Seepage	0.07		
		Slope	0.88				
Lyman, very bouldery	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Thin layer	1.00	Deep to water	1.00
		Slope	0.88	Seepage	0.08		

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ud:							
Udipsamments, dredged------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.22	Deep to water	1.00
Ue:							
Udorthents, smoothed	80	Somewhat limited		Not limited		Very limited	
		Seepage	0.01			Cutbanks cave	1.00
						Slow refill	0.99
						Deep to water	0.96
UnB:							
Unadilla------------	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Deep to water	1.00
				Seepage	0.01		
UnC:							
Unadilla------------	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Deep to water	1.00
		Slope	0.01	Seepage	0.01		
W:							
Water---------------	100	Not rated		Not rated		Not rated	
Wa:							
Wareham-------------	70	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.90		
WnA:							
Windsor-------------	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.90	Deep to water	1.00
WnB:							
Windsor, undulating-	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.90	Deep to water	1.00
WnC:							
Windsor, rolling----	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.90	Deep to water	1.00
		Slope	0.01				
WnD:							
Windsor, hilly------	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.90	Deep to water	1.00
		Slope	0.12				

Table 20.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WO:							
Wonsqueak, ponded---	70	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Seepage	0.01		
WrB:							
Woodbridge----------	70	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Deep to water	1.00
				Thin layer	0.95		
				Seepage	0.07		

Table 21.--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	
ALA:												
Allagash--------	0-1	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-3	Fine sandy loam	ML, SM	A-2, A-4	0	0	90-100	85-100	60-100	30-90	15-44	NP-9
	3-35	Loam, fine sandy loam, silt loam	ML, SM	A-2, A-4	0	0	85-100	85-100	60-95	30-75	---	NP
	35-72	Fine sand, loamy fine sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	70-100	50-100	30-80	2-35	---	NP
ALC:												
Allagash--------	0-1	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-3	Fine sandy loam	SM, ML	A-2, A-4	0	0	90-100	85-100	60-100	30-90	15-44	NP-9
	3-35	Loam, fine sandy loam, silt loam	SM, ML	A-2, A-4	0	0	85-100	85-100	60-95	30-75	---	NP
	35-72	Fine sand, loamy fine sand, sand	SM, SP-SM	A-2, A-3, A-1	0	0	70-100	50-100	30-80	2-35	---	NP
ALE:												
Allagash--------	0-1	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-3	Fine sandy loam	ML, SM	A-2, A-4	0	0	90-100	85-100	60-100	30-90	15-44	NP-9
	3-35	Loam, fine sandy loam, silt loam	ML, SM	A-2, A-4	0	0	85-100	85-100	60-95	30-75	---	NP
	35-72	Fine sand, loamy fine sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	70-100	50-100	30-80	2-35	---	NP

Table 21.--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	
As:												
Allis-----------	0-9	Silt loam	CL, ML	A-6, A-7	0	0	65-99	50-98	45-98	40-95	35-45	10-20
	9-25	Silty clay, very channery silty clay, channery silty clay loam	ML, CL, GC, GM	A-6, A-7	0	0-10	50-96	30-95	30-95	25-95	35-45	10-20
	25-35	Weathered bedrock			---	---	---	---	---	---	---	---
	35-45	Bedrock			---	---	---	---	---	---	---	---
BCC:												
Becket, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-5	Sandy loam	SM, SC, SC-SM	A-1-b, A-2, A-4	1-5	0-15	70-95	60-92	35-85	20-55	15-30	NP-10
	5-32	Loam, sandy loam, gravelly sandy loam	SC-SM, SC, SM	A-2, A-4	0-4	0-15	70-95	60-92	35-75	20-50	15-25	NP-10
	32-72	Gravelly sandy loam, sandy loam, fine sandy loam	SP-SM, GM, GP-GM, SM	A-1, A-2	0-4	1-20	60-95	45-92	30-70	10-40	---	NP
BCE:												
Becket, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-5	Sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	1-5	0-15	70-95	60-92	35-85	20-55	15-30	NP-10
	5-32	Loam, sandy loam, gravelly sandy loam	SC, SC-SM, SM	A-2, A-4	0-4	0-15	70-95	60-92	35-75	20-50	15-25	NP-10
	32-72	Gravelly sandy loam, sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-4	1-20	60-95	45-92	30-70	10-40	---	NP

Table 21.--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	
BEC:												
Becket, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-5	Sandy loam	SC, SC-SM, SM	A-1-b, A-2, A-4	1-5	0-15	70-95	60-92	35-85	20-55	15-30	NP-10
	5-32	Loam, sandy loam, gravelly sandy loam	SC, SC-SM, SM	A-2, A-4	0-4	0-15	70-95	60-92	35-75	20-50	15-25	NP-10
	32-72	Gravelly sandy loam, sandy loam, fine sandy loam	GM, GP-GM, SM, SP-SM	A-1, A-2	0-4	1-20	60-95	45-92	30-70	10-40	---	NP
Tunbridge, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	4-6	Loam	GM, ML, SM	A-2, A-4	1-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	6-7	Fine sandy loam, loam, gravelly sandy loam, channery fine sandy loam	ML, SM	A-2, A-5	0-5	0-15	65-96	50-92	35-90	20-80	15-50	NP-6
	7-16	Loam, sandy loam, gravelly fine sandy loam, channery fine sandy loam	ML, SM	A-4, A-2	0-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	16-31	Sandy loam, gravelly fine sandy loam, channery fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	65-96	50-92	35-90	20-70	15-20	NP-2
	31-41	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
BEE:												
Becket, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-5	Sandy loam	SM, SC, SC-SM	A-1-b, A-2, A-4	1-5	0-15	70-95	60-92	35-85	20-55	15-30	NP-10
	5-32	Loam, sandy loam, gravelly sandy loam	SC, SC-SM, SM	A-2, A-4	0-4	0-15	70-95	60-92	35-75	20-50	15-25	NP-10
	32-72	Gravelly sandy loam, sandy loam, fine sandy loam	SP-SM, SM, GP-GM, GM	A-1, A-2	0-4	1-20	60-95	45-92	30-70	10-40	---	NP
Tunbridge, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	4-6	Loam	SM, GM, ML	A-2, A-4	1-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	6-7	Fine sandy loam, loam, gravelly sandy loam, channery fine sandy loam	ML, SM	A-2, A-5	0-5	0-15	65-96	50-92	35-90	20-80	15-50	NP-6
	7-16	Loam, sandy loam, gravelly fine sandy loam, channery fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	16-31	Sandy loam, gravelly fine sandy loam, channery fine sandy loam	ML, SM	A-2, A-4	0-5	0-15	65-96	50-92	35-90	20-70	15-20	NP-2
	31-41	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
BHC:												
Berkshire, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	---	---	---	---	---	---
	2-6	Loam	ML, SM	A-2, A-4, A-5	1-5	0-10	85-96	75-92	45-85	25-70	15-50	NP-10
	6-30	Loam, fine sandy loam, sandy loam, gravelly loam	SM, ML	A-2, A-4, A-5	0-5	0-15	70-95	60-86	40-80	20-60	15-50	NP-10
	30-72	Gravelly fine sandy loam, sandy loam, loam	ML, SM	A-2, A-4	0-5	1-15	70-95	55-85	40-70	20-55	15-20	NP-6
BHE:												
Berkshire, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	---	---	---	---	---	---
	2-6	Loam	SM, ML	A-2, A-4, A-5	1-5	0-10	85-96	75-92	45-85	25-70	15-50	NP-10
	6-30	Loam, fine sandy loam, sandy loam, gravelly loam	SM, ML	A-2, A-4, A-5	0-5	0-15	70-95	60-86	40-80	20-60	15-50	NP-10
	30-72	Gravelly fine sandy loam, sandy loam, loam	SM, ML	A-2, A-4	0-5	1-15	70-95	55-85	40-70	20-55	15-20	NP-6
BLC:												
Berkshire, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	---	---	---	---	---	---
	2-6	Loam	SM, ML	A-2, A-4, A-5	1-5	0-10	85-96	75-92	45-85	25-70	15-50	NP-10
	6-30	Loam, fine sandy loam, sandy loam, gravelly loam	ML, SM	A-2, A-4, A-5	0-5	0-15	70-95	60-86	40-80	20-60	15-50	NP-10
	30-72	Gravelly fine sandy loam, sandy loam, loam	ML, SM	A-2, A-4	0-5	1-15	70-95	55-85	40-70	20-55	15-20	NP-6

Table 21.--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	
BLC:												
Tunbridge, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	4-6	Loam	SM, ML, GM	A-2, A-4	1-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	6-7	Fine sandy loam, loam, gravelly sandy loam, channery fine sandy loam	SM, ML	A-2, A-5	0-5	0-15	65-96	50-92	35-90	20-80	15-50	NP-6
	7-16	Loam, sandy loam, gravelly fine sandy loam, channery fine sandy loam	ML, SM	A-4, A-2	0-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	16-31	Sandy loam, gravelly fine sandy loam, channery fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	65-96	50-92	35-90	20-70	15-20	NP-2
	31-41	Unweathered bedrock			---	---	---	---	---	---	---	---
BLE:												
Berkshire, very bouldery-------	0-2	Moderately decomposed plant material	PT	A-8	0-5	0-10	---	---	---	---	---	---
	2-6	Loam	SM, ML	A-5, A-2, A-4	1-5	0-10	85-96	75-92	45-85	25-70	15-50	NP-10
	6-30	Loam, fine sandy loam, sandy loam, gravelly loam	ML, SM	A-2, A-5, A-4	0-5	0-15	70-95	60-86	40-80	20-60	15-50	NP-10
	30-72	Gravelly fine sandy loam, sandy loam, loam	ML, SM	A-2, A-4	0-5	1-15	70-95	55-85	40-70	20-55	15-20	NP-6

Table 21.--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	
BLE:												
Tunbridge, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	4-6	Loam	GM, ML, SM	A-2, A-4	1-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	6-7	Fine sandy loam, loam, gravelly sandy loam, channery fine sandy loam	ML, SM	A-2, A-5	0-5	0-15	65-96	50-92	35-90	20-80	15-50	NP-6
	7-16	Loam, sandy loam, gravelly fine sandy loam, channery fine sandy loam	ML, SM	A-4, A-2	0-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	16-31	Sandy loam, gravelly fine sandy loam, channery fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	65-96	50-92	35-90	20-70	15-20	NP-2
	31-41	Unweathered bedrock			---	---	---	---	---	---	---	---
BmB:												
Bernardston-----	0-10	Silt loam	CL-ML, ML	A-4, A-6, A-7	0-1	0-5	80-96	80-92	65-90	50-85	24-45	4-14
	10-26	Channery loam, channery silt loam, gravelly very fine sandy loam	SC-SM, ML, CL-ML, SM	A-2, A-4	0-5	0-10	70-92	60-80	50-80	30-70	22-35	2-10
	26-72	Channery silt loam, channery loam, gravelly very fine sandy loam	SM, SC-SM, ML, CL-ML	A-2, A-4	0-5	0-10	70-90	60-80	50-80	30-70	20-32	2-8

Table 21.--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	
BmC:												
Bernardston-----	0-10	Silt loam	ML, CL-ML	A-4, A-6, A-7	0-1	0-5	80-96	80-92	65-90	50-85	24-45	4-14
	10-26	Channery loam, channery silt loam, gravelly very fine sandy loam	CL-ML, SM, SC-SM, ML	A-2, A-4	0-5	0-10	70-92	60-80	50-80	30-70	22-35	2-10
	26-72	Channery silt loam, channery loam, gravelly very fine sandy loam	SC-SM, SM, ML, CL-ML	A-2, A-4	0-5	0-10	70-90	60-80	50-80	30-70	20-32	2-8
BmD:												
Bernardston-----	0-10	Silt loam	ML, CL-ML	A-4, A-6, A-7	0-1	0-5	80-96	80-92	65-90	50-85	24-45	4-14
	10-26	Channery loam, channery silt loam, gravelly very fine sandy loam	SM, SC-SM, ML, CL-ML	A-2, A-4	0-5	0-10	70-92	60-80	50-80	30-70	22-35	2-10
	26-72	Channery silt loam, channery loam, gravelly very fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0-5	0-10	70-90	60-80	50-80	30-70	20-32	2-8
BnB:												
Bernardston-----	0-10	Silt loam	ML, CL-ML	A-4, A-6, A-7	0-1	0-5	80-96	80-92	65-90	50-85	24-45	4-14
	10-26	Channery loam, channery silt loam, gravelly very fine sandy loam	SM, SC-SM, CL-ML, ML	A-2, A-4	0-5	0-10	70-92	60-80	50-80	30-70	22-35	2-10
	26-72	Channery silt loam, channery loam, gravelly very fine sandy loam	SM, SC-SM, ML, CL-ML	A-2, A-4	0-5	0-10	70-90	60-80	50-80	30-70	20-32	2-8

Table 21.--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	
BnB:												
Manlius---------	0-5	Channery silt loam	SM, ML, GM, CL-ML	A-2, A-4	0	0-15	65-90	50-75	40-75	30-70	25-35	4-10
	5-21	Channery silt loam, very channery silt loam, very channery loam	GC-GM, GM, GW-GM	A-1, A-2, A-4	0	0-15	50-75	25-60	15-55	10-50	25-35	4-10
	21-24	Extremely channery silt loam, very channery loam	GC-GM, GM, GW-GM	A-4, A-1, A-2	0	1-20	40-75	20-55	15-50	10-45	25-35	4-10
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Nassau----------	0-3	Channery silt loam	GM, SM, ML	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GC-GM, GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
BnC:												
Bernardston-----	0-10	Silt loam	CL-ML, ML	A-4, A-6, A-7	0-1	0-5	80-96	80-92	65-90	50-85	24-45	4-14
	10-26	Channery loam, channery silt loam, gravelly very fine sandy loam	SM, SC-SM, ML, CL-ML	A-2, A-4	0-5	0-10	70-92	60-80	50-80	30-70	22-35	2-10
	26-72	Channery silt loam, channery loam, gravelly very fine sandy loam	SC-SM, ML, SM, CL-ML	A-2, A-4	0-5	0-10	70-90	60-80	50-80	30-70	20-32	2-8
Manlius---------	0-5	Channery silt loam	ML, GM, SM, CL-ML	A-2, A-4	0	0-15	65-90	50-75	40-75	30-70	25-35	4-10
	5-21	Channery silt loam, very channery silt loam, very channery loam	GC-GM, GM, GW-GM	A-1, A-2, A-4	0	0-15	50-75	25-60	15-55	10-50	25-35	4-10
	21-24	Extremely channery silt loam, very channery loam	GM, GC-GM, GW-GM	A-1, A-2, A-4	0	1-20	40-75	20-55	15-50	10-45	25-35	4-10

Table 21.--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	
BnC:												
Manlius---------	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Nassau----------	0-3	Channery silt loam	SM, ML, GM	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GM, GC-GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
BnD:												
Bernardston-----	0-10	Silt loam	CL-ML, ML	A-4, A-6, A-7	0-1	0-5	80-96	80-92	65-90	50-85	24-45	4-14
	10-26	Channery loam, channery silt loam, gravelly very fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0-5	0-10	70-92	60-80	50-80	30-70	22-35	2-10
	26-72	Channery silt loam, channery loam, gravelly very fine sandy loam	CL-ML, SC-SM, ML, SM	A-2, A-4	0-5	0-10	70-90	60-80	50-80	30-70	20-32	2-8
Manlius---------	0-5	Channery silt loam	CL-ML, GM, ML, SM	A-2, A-4	0	0-15	65-90	50-75	40-75	30-70	25-35	4-10
	5-21	Channery silt loam, very channery silt loam, very channery loam	GC-GM, GM, GW-GM	A-1, A-2, A-4	0	0-15	50-75	25-60	15-55	10-50	25-35	4-10
	21-24	Extremely channery silt loam, very channery loam	GW-GM, GC-GM, GM	A-1, A-2, A-4	0	1-20	40-75	20-55	15-50	10-45	25-35	4-10
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
BnD:												
Nassau----------	0-3	Channery silt loam	GM, ML, SM	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GC-GM, GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
BOC:												
Bice, stony-----	0-5	Loam			0-5	0-10	70-96	60-92	40-85	25-65	15-25	NP-3
	5-25	Fine sandy loam, gravelly sandy loam, loam	GM, ML, SM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
	25-30	Fine sandy loam, gravelly sandy loam, gravelly loam	ML, SM, GM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
	30-72	Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, loam	SM, GM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
BOE:												
Bice, stony-----	0-5	Loam			0-5	0-10	70-96	60-92	40-85	25-65	15-25	NP-3
	5-25	Fine sandy loam, gravelly sandy loam, loam	SM, ML, GM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
	25-30	Fine sandy loam, gravelly sandy loam, gravelly loam	SM, ML, GM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
	30-72	Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, loam	GM, SM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3

Table 21.--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	
BPC:												
Bice, stony-----	0-5	Loam			0-5	0-10	70-96	60-92	40-85	25-65	15-25	NP-3
	5-25	Fine sandy loam, gravelly sandy loam, loam	GM, ML, SM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
	25-30	Fine sandy loam, gravelly sandy loam, gravelly loam	GM, ML, SM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
	30-72	Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, loam	GM, SM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
Woodstock, stony	0-1	Moderately decomposed plant material	PT	A-8	0-8	0-15	---	---	---	---	---	---
	1-3	Sandy loam	SM	A-2, A-4	0-8	0-15	65-95	50-92	30-75	15-45	---	NP
	3-16	Sandy loam, gravelly sandy loam, gravelly fine sandy loam	SM	A-2, A-4	0-3	0-15	65-95	50-92	30-70	15-45	---	NP
	16-26	Unweathered bedrock			---	---	---	---	---	---	---	---
BPE:												
Bice, stony-----	0-5	Loam			0-5	0-10	70-96	60-92	40-85	25-65	15-25	NP-3
	5-25	Fine sandy loam, gravelly sandy loam, loam	SM, GM, ML	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
	25-30	Fine sandy loam, gravelly sandy loam, gravelly loam	GM, ML, SM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3
	30-72	Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam, loam	SM, GM	A-1-b, A-2, A-4	0-1	0-10	70-95	60-92	35-85	20-65	15-25	NP-3

Table 21.--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	
BPE:												
Woodstock, stony	0-1	Moderately decomposed plant material	PT	A-8	0-8	0-15	---	---	---	---	---	---
	1-3	Sandy loam	SM	A-2, A-4	0-8	0-15	65-95	50-92	30-75	15-45	---	NP
	3-16	Sandy loam, gravelly sandy loam, gravelly fine sandy loam	SM	A-2, A-4	0-3	0-15	65-95	50-92	30-70	15-45	---	NP
	16-26	Unweathered bedrock			---	---	---	---	---	---	---	---
BtB:												
Broadalbin------	0-9	Silt loam	SM, ML	A-4, A-5	0	0-5	85-100	75-95	55-90	35-75	35-45	5-10
	9-30	Silt loam, fine sandy loam, loam, gravelly fine sandy loam	ML, GM, CL-ML, SM	A-2, A-4	0-1	0-5	70-100	50-95	40-90	20-75	15-35	1-10
	30-43	Gravelly fine sandy loam, fine sandy loam, loam	CL-ML, GM, ML, SM	A-2, A-4	0-2	0-10	70-98	50-95	35-85	20-70	15-25	1-10
	43-74	Channery fine sandy loam, very gravelly fine sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
	74-88	Channery fine sandy loam, very gravelly fine sandy loam, loam	ML, SM, GM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
BtC:												
Broadalbin------	0-9	Silt loam	ML, SM	A-4, A-5	0	0-5	85-100	75-95	55-90	35-75	35-45	5-10
	9-30	Silt loam, fine sandy loam, loam, gravelly fine sandy loam	ML, SM, GM, CL-ML	A-2, A-4	0-1	0-5	70-100	50-95	40-90	20-75	15-35	1-10
	30-43	Gravelly fine sandy loam, fine sandy loam, loam	SM, ML, GM, CL-ML	A-2, A-4	0-2	0-10	70-98	50-95	35-85	20-70	15-25	1-10

Table 21.--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	
BtC:												
Broadalbin------	43-74	Channery fine sandy loam, very gravelly fine sandy loam, loam	ML, SM, GM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
	74-88	Channery fine sandy loam, very gravelly fine sandy loam, loam	ML, GM, SM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
BtD:												
Broadalbin------	0-9	Silt loam	ML, SM	A-4, A-5	0	0-5	85-100	75-95	55-90	35-75	35-45	5-10
	9-30	Silt loam, fine sandy loam, loam, gravelly fine sandy loam	CL-ML, GM, ML, SM	A-2, A-4	0-1	0-5	70-100	50-95	40-90	20-75	15-35	1-10
	30-43	Gravelly fine sandy loam, fine sandy loam, loam	SM, ML, CL-ML, GM	A-2, A-4	0-2	0-10	70-98	50-95	35-85	20-70	15-25	1-10
	43-74	Channery fine sandy loam, very gravelly fine sandy loam, loam	ML, GM, SM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
	74-88	Channery fine sandy loam, very gravelly fine sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
BvB:												
Broadalbin------	0-9	Silt loam	ML, SM	A-4, A-5	0	0-5	85-100	75-95	55-90	35-75	35-45	5-10
	9-30	Silt loam, fine sandy loam, loam, gravelly fine sandy loam	CL-ML, GM, ML, SM	A-2, A-4	0-1	0-5	70-100	50-95	40-90	20-75	15-35	1-10
	30-43	Gravelly fine sandy loam, fine sandy loam, loam	SM, ML, GM, CL-ML	A-2, A-4	0-2	0-10	70-98	50-95	35-85	20-70	15-25	1-10

Table 21.--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	
BvB:												
Broadalbin------	43-74	Channery fine sandy loam, very gravelly fine sandy loam, loam	ML, GM, SM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
	74-88	Channery fine sandy loam, very gravelly fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
Manlius---------	0-5	Channery silt loam	GM, CL-ML, ML, SM	A-2, A-4	0	0-15	65-90	50-75	40-75	30-70	25-35	4-10
	5-21	Channery silt loam, very channery silt loam, very channery loam	GM, GC-GM, GW-GM	A-1, A-2, A-4	0	0-15	50-75	25-60	15-55	10-50	25-35	4-10
	21-24	Extremely channery silt loam, very channery loam	GM, GC-GM, GW-GM	A-1, A-2, A-4	0	1-20	40-75	20-55	15-50	10-45	25-35	4-10
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Nassau----------	0-3	Channery silt loam	SM, GM, ML	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GC-GM, GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
BvC:												
Broadalbin------	0-9	Silt loam	ML, SM	A-4, A-5	0	0-5	85-100	75-95	55-90	35-75	35-45	5-10
	9-30	Silt loam, fine sandy loam, loam, gravelly fine sandy loam	CL-ML, ML, GM, SM	A-2, A-4	0-1	0-5	70-100	50-95	40-90	20-75	15-35	1-10
	30-43	Gravelly fine sandy loam, fine sandy loam, loam	CL-ML, SM, ML, GM	A-2, A-4	0-2	0-10	70-98	50-95	35-85	20-70	15-25	1-10

Table 21.--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	
BvC:												
Broadalbin------	43-74	Channery fine sandy loam, very gravelly fine sandy loam, loam	GM, SM, ML	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
	74-88	Channery fine sandy loam, very gravelly fine sandy loam, loam	SM, GM, ML	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
Manlius---------	0-5	Channery silt loam	SM, ML, GM, CL-ML	A-2, A-4	0	0-15	65-90	50-75	40-75	30-70	25-35	4-10
	5-21	Channery silt loam, very channery silt loam, very channery loam	GC-GM, GM, GW-GM	A-1, A-2, A-4	0	0-15	50-75	25-60	15-55	10-50	25-35	4-10
	21-24	Extremely channery silt loam, very channery loam	GW-GM, GM, GC-GM	A-1, A-2, A-4	0	1-20	40-75	20-55	15-50	10-45	25-35	4-10
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Nassau----------	0-3	Channery silt loam	GM, ML, SM	A-4, A-2	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GC-GM, GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
BvD:												
Broadalbin------	0-9	Silt loam	SM, ML	A-4, A-5	0	0-5	85-100	75-95	55-90	35-75	35-45	5-10
	9-30	Silt loam, fine sandy loam, loam, gravelly fine sandy loam	SM, ML, GM, CL-ML	A-2, A-4	0-1	0-5	70-100	50-95	40-90	20-75	15-35	1-10
	30-43	Gravelly fine sandy loam, fine sandy loam, loam	ML, GM, SM, CL-ML	A-2, A-4	0-2	0-10	70-98	50-95	35-85	20-70	15-25	1-10

Table 21.--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	
BvD:												
Broadalbin------	43-74	Channery fine sandy loam, very gravelly fine sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
	74-88	Channery fine sandy loam, very gravelly fine sandy loam, loam	GM, ML, SM	A-2, A-4	0-5	0-15	55-95	35-85	25-70	15-55	15-25	1-10
Manlius---------	0-5	Channery silt loam	SM, ML, GM, CL-ML	A-2, A-4	0	0-15	65-90	50-75	40-75	30-70	25-35	4-10
	5-21	Channery silt loam, very channery silt loam, very channery loam	GW-GM, GC-GM, GM	A-1, A-2, A-4	0	0-15	50-75	25-60	15-55	10-50	25-35	4-10
	21-24	Extremely channery silt loam, very channery loam	GC-GM, GM, GW-GM	A-1, A-2, A-4	0	1-20	40-75	20-55	15-50	10-45	25-35	4-10
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Nassau----------	0-3	Channery silt loam	ML, GM, SM	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GM, GC-GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
BxB:												
Burdett---------	0-7	Silt loam	ML	A-4, A-7	0-1	0-1	85-95	70-92	65-90	45-80	35-45	5-15
	7-11	Very fine sandy loam, silt loam, channery silt loam	CL, ML, SC, SM	A-4	0-1	0-5	85-95	70-92	65-90	45-80	20-30	2-10
	11-33	Silty clay loam, channery clay loam	SC, GC-GM, CL-ML, CL	A-4, A-6	0-4	0-10	70-95	50-85	50-75	40-70	20-30	5-15

Table 21.--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	
BxB:												
Burdett	33-72	Channery silt loam, channery loam, clay loam, silty clay loam	CL-ML, CL, SC, GC	A-4, A-6	0-4	1-15	70-92	50-85	45-75	30-70	20-35	5-15
CcB:												
Charlton	0-14	Loam	ML, SM	A-2, A-4	0-1	0-10	70-96	50-92	35-80	20-65	15-25	NP-5
	14-36	Gravelly fine sandy loam, sandy loam, fine sandy loam, gravelly loam	ML, SM	A-2, A-4	0-2	0-10	70-96	50-92	35-80	20-65	15-25	NP-3
	36-72	Gravelly sandy loam, gravelly fine sandy loam, loam	SM, GM	A-2, A-4	0-5	0-15	60-96	35-92	15-80	10-55	5-15	NP
CcC:												
Charlton	0-14	Loam	SM, ML	A-2, A-4	0-1	0-10	70-96	50-92	35-80	20-65	15-25	NP-5
	14-36	Gravelly fine sandy loam, sandy loam, fine sandy loam, gravelly loam	ML, SM	A-2, A-4	0-2	0-10	70-96	50-92	35-80	20-65	15-25	NP-3
	36-72	Gravelly sandy loam, gravelly fine sandy loam, loam	SM, GM	A-2, A-4	0-5	0-15	60-96	35-92	15-80	10-55	5-15	NP
CcD:												
Charlton	0-14	Loam	ML, SM	A-2, A-4	0-1	0-10	70-96	50-92	35-80	20-65	15-25	NP-5
	14-36	Gravelly fine sandy loam, sandy loam, fine sandy loam, gravelly loam	ML, SM	A-2, A-4	0-2	0-10	70-96	50-92	35-80	20-65	15-25	NP-3
	36-72	Gravelly sandy loam, gravelly fine sandy loam, loam	GM, SM	A-2, A-4	0-5	0-15	60-96	35-92	15-80	10-55	5-15	NP

Table 21.--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	
CeB:												
Chatfield, undulating-----	0-1	Slightly decomposed plant material	PT	A-8	0	0-5	---	---	---	---	---	---
	1-2	Moderately decomposed plant material	PT	A-8	0	0-5	---	---	---	---	---	---
	2-8	Sandy loam	SC-SM, SM, CL-ML, ML	A-2, A-4	0	0-5	85-96	75-92	45-80	25-65	10-20	1-6
	8-24	Silt loam, loam, gravelly loam, flaggy sandy loam	SM, GM, ML, CL-ML	A-1, A-2, A-4	0	0-10	65-96	50-92	35-75	15-70	10-20	1-6
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Hollis, undulating-----	0-1	Moderately decomposed plant material	PT	A-8	0	0-5	---	---	---	---	---	---
	1-3	Fine sandy loam	ML, SM	A-2, A-4	0	0-5	85-96	75-92	45-85	25-65	15-25	NP-5
	3-19	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	GM, ML, SM	A-2, A-4	0	0-15	65-96	50-92	30-80	15-65	15-25	NP-5
	19-29	Unweathered bedrock			---	---	---	---	---	---	---	---
CeC:												
Chatfield, rolling--------	0-1	Slightly decomposed plant material	PT	A-8	0	0-5	---	---	---	---	---	---
	1-2	Moderately decomposed plant material	PT	A-8	0	0-5	---	---	---	---	---	---
	2-8	Sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0-5	85-96	75-92	45-80	25-65	10-20	1-6
	8-24	Silt loam, loam, gravelly loam, flaggy sandy loam	ML, SM, CL-ML, GM	A-1, A-2, A-4	0	0-10	65-96	50-92	35-75	15-70	10-20	1-6
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
CeC:												
Hollis, rolling-	0-1	Moderately decomposed plant material	PT	A-8	0	0-5	---	---	---	---	---	---
	1-3	Fine sandy loam	ML, SM	A-2, A-4	0	0-5	85-96	75-92	45-85	25-65	15-25	NP-5
	3-19	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	GM, ML, SM	A-2, A-4	0	0-15	65-96	50-92	30-80	15-65	15-25	NP-5
	19-29	Unweathered bedrock			---	---	---	---	---	---	---	---
CfD:												
Chatfield, hilly	0-1	Slightly decomposed plant material	PT	A-8	0	0-5	---	---	---	---	---	---
	1-2	Moderately decomposed plant material	PT	A-8	0	0-5	---	---	---	---	---	---
	2-8	Sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0-5	85-96	75-92	45-80	25-65	10-20	1-6
	8-24	Silt loam, loam, gravelly loam, flaggy sandy loam	CL-ML, GM, ML, SM	A-1, A-2, A-4	0	0-10	65-96	50-92	35-75	15-70	10-20	1-6
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Hollis, hilly---	0-1	Moderately decomposed plant material	PT	A-8	0	0-5	---	---	---	---	---	---
	1-3	Fine sandy loam	SM, ML	A-2, A-4	0	0-5	85-96	75-92	45-85	25-65	15-25	NP-5
	3-19	Fine sandy loam, gravelly fine sandy loam, sandy loam, loam	SM, ML, GM	A-4, A-2	0	0-15	65-96	50-92	30-80	15-65	15-25	NP-5
	19-29	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
Cg:												
Cheektowaga-----	0-12	Mucky very fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	95-100	60-95	20-65	25-35	5-10
	12-21	Loamy sand, loamy fine sand, fine sand, sand	SM, SP-SM, SW-SM	A-2, A-4	0	0	100	95-100	50-75	5-40	15-20	NP
	21-38	Clay, silty clay, silty clay loam	CL	A-6	0	0	100	95-100	90-100	75-95	25-40	10-20
	38-72	Silty clay, clay, silty clay loam	CL	A-6	0	0	100	95-100	90-100	75-95	25-40	10-20
ChB:												
Chenango, loamy substratum-----	0-6	Silt loam	ML, SM	A-2, A-4	0	0-5	85-92	75-86	45-85	25-75	15-35	NP-10
	6-30	Gravelly loam, very gravelly fine sandy loam, very gravelly silt loam, gravelly silt loam	SM, ML, GM	A-1, A-2, A-4	0	1-15	50-85	30-75	25-70	10-65	15-35	NP-10
	30-72	Very channery fine sandy loam, very channery silt loam, gravelly loamy fine sand, very gravelly sand, very gravelly loamy coarse sand	SW, GM, GW, SM	A-1	0	5-15	45-75	20-60	10-55	1-40	15-35	NP-10
ChC:												
Chenango, loamy subtratum------	0-6	Silt loam	ML, SM	A-2, A-4	0	0-5	85-92	75-86	45-85	25-75	15-35	NP-10
	6-30	Gravelly loam, very gravelly fine sandy loam, very gravelly silt loam, gravelly silt loam	ML, SM, GM	A-1, A-2, A-4	0	1-15	50-85	30-75	25-70	10-65	15-35	NP-10

Table 21.--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	
ChC:												
Chenango, loamy subtratum------	30-72	Very channery fine sandy loam, very channery silt loam, gravelly loamy fine sand, very gravelly sand, very gravelly loamy coarse sand	GW, SM, SW, GM	A-1	0	5-15	45-75	20-60	10-55	1-40	15-35	NP-10
ClA:												
Claverack-------	0-8	Loamy fine sand	SM, SW-SM, SW, SP	A-1, A-2, A-3, A-4	0	0	100	95-100	45-85	4-50	---	NP
	8-27	Fine sand, sand, loamy fine sand	SW-SM, SP, SM, SW	A-1, A-2, A-3	0	0	100	95-100	45-80	4-35	---	NP
	27-31	Silt loam, very fine sandy loam	ML	A-4	0	0	100	95-100	85-100	55-90	15-20	NP-4
	31-72	Silty clay, clay, silty clay loam	CL, CL-ML	A-4, A-6, A-7	0	0	100	95-100	85-100	70-95	20-50	5-30
ClB:												
Claverack-------	0-8	Loamy fine sand	SW, SW-SM, SP, SM	A-1, A-2, A-3, A-4	0	0	100	95-100	45-85	4-50	---	NP
	8-27	Fine sand, sand, loamy fine sand	SW-SM, SW, SP, SM	A-1, A-2, A-3	0	0	100	95-100	45-80	4-35	---	NP
	27-31	Silt loam, very fine sandy loam	ML	A-4	0	0	100	95-100	85-100	55-90	15-20	NP-4
	31-72	Silty clay, clay, silty clay loam	CL, CL-ML	A-4, A-6, A-7	0	0	100	95-100	85-100	70-95	20-50	5-30
COC:												
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0-10	---	---	---	---	---	---
	1-3	Gravelly sandy loam	GW-GM, SM, SW-SM, GM	A-1, A-2	0	0-10	60-88	50-75	25-55	4-35	10-15	NP-2

Table 21.--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	
COC:												
Colton----------	3-41	Gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	SP, GM, SM, GP	A-1	0-2	0-15	50-88	30-75	15-50	2-20	---	NP
	41-72	Stratified very gravelly sand, very gravelly loamy sand, extremely gravelly coarse sand, very cobbly sand	GW, GP, SP, SW	A-1	0-5	0-25	45-75	20-50	10-30	0-15	---	NP
COE:												
Colton----------	0-1	Moderately decomposed plant material	PT	A-8	0	0-10	---	---	---	---	---	---
	1-3	Gravelly sandy loam	SW-SM, SM, GW-GM, GM	A-1, A-2	0	0-10	60-88	50-75	25-55	4-35	10-15	NP-2
	3-41	Gravelly loamy sand, very gravelly sand, gravelly loamy fine sand, cobbly coarse sand	SP, SM, GP, GM	A-1	0-2	0-15	50-88	30-75	15-50	2-20	---	NP
	41-72	Stratified very gravelly sand, very gravelly loamy sand, extremely gravelly coarse sand, very cobbly sand	SP, GW, GP, SW	A-1	0-5	0-25	45-75	20-50	10-30	0-15	---	NP

Table 21.--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	
Cs:												
Cosad-----------	0-8	Fine sandy loam	SM	A-4	0	0	100	95-100	50-85	10-50	---	NP
	8-20	Loamy fine sand, fine sand, sand	SM, SP-SM, SW-SM	A-2, A-3	0	0	100	95-100	50-80	5-30	---	NP
	20-27	Loamy fine sand, fine sand, sand	SM, SW-SM, SP-SM	A-2, A-3	0	0	100	95-100	50-80	5-30	---	NP
	27-72	Clay, silty clay, silty clay loam	CL-ML, CL	A-4, A-6, A-7	0	0	100	95-100	90-100	75-95	20-50	5-30
DeA:												
Deerfield-------	0-10	Loamy fine sand	SP-SM, SM	A-1, A-2, A-3, A-4	0	0	92-100	80-100	40-75	5-40	---	NP
	10-26	Loamy fine sand, loamy sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	92-100	80-100	40-75	5-35	---	NP
	26-72	Fine sand, sand, coarse sand	SM	A-1, A-2, A-3	0	0	92-100	70-100	35-75	5-30	---	NP
DeB:												
Deerfield, undulating-----	0-10	Loamy fine sand	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	92-100	80-100	40-75	5-40	---	NP
	10-26	Loamy fine sand, loamy sand, sand	SP-SM, SM	A-1, A-2, A-3	0	0	92-100	80-100	40-75	5-35	---	NP
	26-72	Fine sand, sand, coarse sand	SM	A-1, A-2, A-3	0	0	92-100	70-100	35-75	5-30	---	NP
ElB:												
Elmridge--------	0-8	Very fine sandy loam	ML	A-4	0	0	100	95-100	60-95	30-65	15-30	NP-6
	8-18	Very fine sandy loam, fine sandy loam, loam	ML, SM	A-4	0	0	100	95-100	70-95	40-65	15-30	NP-6
	18-39	Silty clay, silty clay loam, clay	CL	A-6, A-7	0	0	100	95-100	90-100	75-95	3-50	12-25
	39-72	Clay, silty clay	CL	A-6, A-7	0	0	100	95-100	90-100	75-95	3-50	12-25

Table 21.--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	
FaB: Farmington, rocky----------	0-9	Silt loam	SM, SC, ML, CL	A-2, A-4, A-6	0	0-10	65-95	50-92	40-90	25-80	20-35	3-15
	9-15	Silt loam, loam, gravelly fine sandy loam	GC, GM, ML, CL	A-2, A-4, A-6	0	0-10	65-95	50-92	40-90	25-80	20-35	3-15
	15-25	Unweathered bedrock			---	---	---	---	---	---	---	---
FcC: Farmington, very rocky----------	0-9	Silt loam	SM, SC, ML, CL	A-2, A-4, A-6	0	0-10	65-95	50-92	40-90	25-80	20-35	3-15
	9-15	Silt loam, loam, gravelly fine sandy loam	ML, GC, GM, CL	A-2, A-4, A-6	0	0-10	65-95	50-92	40-90	25-80	20-35	3-15
	15-25	Unweathered bedrock			---	---	---	---	---	---	---	---
Fl: Fluvaquents, frequently flooded--------	0-10	Gravelly loamy sand	CL, GM, ML, SM	A-1, A-2, A-4	0-1	0-15	55-100	35-100	20-90	5-80	15-25	NP-15
	10-72	Gravelly sandy loam, gravelly silt loam, fine sandy loam, very gravelly sand, silty clay loam	CL, GM, ML, SC-SM	A-1, A-2, A-6	0-1	0-15	50-100	35-100	15-95	5-90	15-30	NP-20

Table 21.--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	
FU:												
Fluvaquents, flooded	0-10	Gravelly loamy sand	SM, ML, GM, CL	A-1, A-2, A-4	0-1	0-15	55-100	35-100	20-90	5-80	15-25	NP-15
	10-72	Gravelly sandy loam, gravelly silt loam, fine sandy loam, very gravelly sand, silty clay loam	GM, ML, SC-SM, CL	A-1, A-2, A-6	0-1	0-15	50-100	35-100	15-95	5-90	15-30	NP-20
Udipsamments	0-6	Loamy sand	SW, SP, SM	A-1, A-2	---	0-15	65-100	55-100	30-70	0-30	---	NP
	6-72	Loamy sand	SP, SW, SM	A-1, A-2	---	0-15	65-100	55-100	30-70	0-30	---	NP
GaB:												
Galway	0-6	Loam	SM, ML	A-6, A-7	0-1	0-8	85-100	75-100	65-95	45-80	35-45	10-15
	6-28	Loam, fine sandy loam, silt loam, gravelly fine sandy loam	CL-ML, GC-GM, GM, ML	A-1, A-2, A-4, A-6	0-1	0-10	60-96	50-95	35-90	20-75	20-40	3-15
	28-30	Fine sandy loam, loam, silt loam, gravelly fine sandy loam	ML, CL-ML, GC-GM, GM	A-1, A-2, A-4, A-6	0-1	0-10	60-96	50-95	35-90	20-75	20-40	3-15
	30-40	Unweathered bedrock			---	---	---	---	---	---	---	---
GaC:												
Galway	0-6	Loam	SM, ML	A-6, A-7	0-1	0-8	85-100	75-100	65-95	45-80	35-45	10-15
	6-28	Loam, fine sandy loam, silt loam, gravelly fine sandy loam	ML, CL-ML, GC-GM, GM	A-1, A-2, A-4, A-6	0-1	0-10	60-96	50-95	35-90	20-75	20-40	3-15
	28-30	Fine sandy loam, loam, silt loam, gravelly fine sandy loam	ML, GM, GC-GM, CL-ML	A-1, A-2, A-4, A-6	0-1	0-10	60-96	50-95	35-90	20-75	20-40	3-15
	30-40	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
HcA:												
Hinckley--------	0-6	Gravelly loamy sand	GP-GM, SM, SP-SM, GM	A-1, A-2	0	0-10	50-95	35-92	20-75	10-45	15-20	NP
	6-20	Gravelly loamy sand, very gravelly sand, loamy fine sand, very gravelly loamy coarse sand	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	0-1	0-15	50-95	35-92	15-65	2-25	15-20	NP
	20-72	Stratified very gravelly sand to cobbly coarse sand, loamy fine sand, cobbly sand	SP, SP-SM, GP, GP-GM	A-1	0-2	8-20	48-88	30-75	15-40	0-15	10-15	NP
HcB:												
Hinckley, undulating-----	0-6	Gravelly loamy sand	GM, GP-GM, SM, SP-SM	A-1, A-2	0	0-10	50-95	35-92	20-75	10-45	15-20	NP
	6-20	Gravelly loamy sand, very gravelly sand, loamy fine sand, very gravelly loamy coarse sand	GM, SM, GP-GM, SP-SM	A-1, A-2, A-3	0-1	0-15	50-95	35-92	15-65	2-25	15-20	NP
	20-72	Stratified very gravelly sand to cobbly coarse sand, loamy fine sand, cobbly sand	GP-GM, SP, SP-SM, GP	A-1	0-2	8-20	48-88	30-75	15-40	0-15	10-15	NP

Table 21.--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	
HcC:												
Hinckley,												
rolling--------	0-6	Gravelly loamy sand	GP-GM, SP-SM, SM, GM	A-1, A-2	0	0-10	50-95	35-92	20-75	10-45	15-20	NP
	6-20	Gravelly loamy sand, very gravelly sand, loamy fine sand, very gravelly loamy coarse sand	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	0-1	0-15	50-95	35-92	15-65	2-25	15-20	NP
	20-72	Stratified very gravelly sand to cobbly coarse sand, loamy fine sand, cobbly sand	SP, GP-GM, GP, SP-SM	A-1	0-2	8-20	48-88	30-75	15-40	0-15	10-15	NP
HcD:												
Hinckley, hilly-	0-6	Gravelly loamy sand	SM, GP-GM, GM, SP-SM	A-1, A-2	0	0-10	50-95	35-92	20-75	10-45	15-20	NP
	6-20	Gravelly loamy sand, very gravelly sand, loamy fine sand, very gravelly loamy coarse sand	SP-SM, GM, GP-GM, SM	A-1, A-2, A-3	0-1	0-15	50-95	35-92	15-65	2-25	15-20	NP
	20-72	Stratified very gravelly sand to cobbly coarse sand, loamy fine sand, cobbly sand	GP-GM, SP, SP-SM, GP	A-1	0-2	8-20	48-88	30-75	15-40	0-15	10-15	NP

Table 21.--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	
HoA:												
Hoosic----------	0-9	Gravelly sandy loam	SM, ML, GM	A-1, A-2, A-4, A-5	0	0-8	65-85	50-75	30-70	15-60	30-45	2-10
	9-18	Gravelly sandy loam, very gravelly sandy loam, gravelly loam	SP-SM, SM, GM	A-1, A-2, A-4	0	0-8	50-75	35-70	20-60	10-40	20-30	2-8
	18-24	Very gravelly loamy sand, very gravelly sand, gravelly loamy sand	GM, SM, SP	A-1	0	0-8	50-75	35-70	15-40	2-20	---	NP
	24-72	Stratified very gravelly sand to coarse sand, very gravelly loamy sand, extremely gravelly sand	GM, GP, SM, SP	A-1	0	0-15	40-70	20-50	10-30	0-15	---	NP
HoB:												
Hoosic, undulating-----	0-9	Gravelly sandy loam	GM, ML, SM	A-1, A-2, A-4, A-5	0	0-8	65-85	50-75	30-70	15-60	30-45	2-10
	9-18	Gravelly sandy loam, very gravelly sandy loam, gravelly loam	GM, SM, SP-SM	A-1, A-2, A-4	0	0-8	50-75	35-70	20-60	10-40	20-30	2-8
	18-24	Very gravelly loamy sand, very gravelly sand, gravelly loamy sand	SM, SP, GM	A-1	0	0-8	50-75	35-70	15-40	2-20	---	NP
	24-72	Stratified very gravelly sand to coarse sand, very gravelly loamy sand, extremely gravelly sand	GM, GP, SM, SP	A-1	0	0-15	40-70	20-50	10-30	0-15	---	NP

Table 21.--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	
HoC:												
Hoosic, rolling-	0-9	Gravelly sandy loam	GM, ML, SM	A-1, A-2, A-4, A-5	0	0-8	65-85	50-75	30-70	15-60	30-45	2-10
	9-18	Gravelly sandy loam, very gravelly sandy loam, gravelly loam	GM, SM, SP-SM	A-1, A-2, A-4	0	0-8	50-75	35-70	20-60	10-40	20-30	2-8
	18-24	Very gravelly loamy sand, very gravelly sand, gravelly loamy sand	GM, SM, SP	A-1	0	0-8	50-75	35-70	15-40	2-20	---	NP
	24-72	Stratified very gravelly sand to coarse sand, very gravelly loamy sand, extremely gravelly sand	SP, SM, GP, GM	A-1	0	0-15	40-70	20-50	10-30	0-15	---	NP
HuB:												
Hudson----------	0-8	Silt loam	OL, ML, CL-ML, CL	A-4, A-6, A-7	0	0	92-100	85-100	75-100	55-95	25-48	5-19
	8-13	Silty clay loam, silty clay	CL, CH	A-6, A-7	0	0	92-100	85-100	80-100	75-95	35-65	15-35
	13-32	Silty clay, silty clay loam	CH, CL	A-6, A-7	0	0	92-100	85-100	80-100	75-95	35-65	15-35
	32-72	Clay, silty clay, silt loam	CH, CL	A-6, A-7	0	0	92-100	85-100	75-100	65-95	35-65	15-35
HuC:												
Hudson----------	0-8	Silt loam	ML, OL, CL, CL-ML	A-4, A-6, A-7	0	0	92-100	85-100	75-100	55-95	25-48	5-19
	8-13	Silty clay loam, silty clay	CH, CL	A-6, A-7	0	0	92-100	85-100	80-100	75-95	35-65	15-35
	13-32	Silty clay, silty clay loam	CH, CL	A-6, A-7	0	0	92-100	85-100	80-100	75-95	35-65	15-35
	32-72	Clay, silty clay, silt loam	CL, CH	A-6, A-7	0	0	92-100	85-100	75-100	65-95	35-65	15-35

Table 21.--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	
HuD:												
Hudson, hilly	0-8	Silt loam	ML, OL, CL-ML, CL	A-4, A-6, A-7	0	0	92-100	85-100	75-100	55-95	25-48	5-19
	8-13	Silty clay loam, silty clay	CL, CH	A-6, A-7	0	0	92-100	85-100	80-100	75-95	35-65	15-35
	13-32	Silty clay, silty clay loam	CL, CH	A-6, A-7	0	0	92-100	85-100	80-100	75-95	35-65	15-35
	32-72	Clay, silty clay, silt loam	CL, CH	A-6, A-7	0	0	92-100	85-100	75-100	65-95	35-65	15-35
HuE:												
Hudson	0-8	Silt loam	ML, OL, CL-ML, CL	A-4, A-6, A-7	0	0	92-100	85-100	75-100	55-95	25-48	5-19
	8-13	Silty clay loam, silty clay	CH, CL	A-6, A-7	0	0	92-100	85-100	80-100	75-95	35-65	15-35
	13-32	Silty clay, silty clay loam	CH, CL	A-6, A-7	0	0	92-100	85-100	80-100	75-95	35-65	15-35
	32-72	Clay, silty clay, silt loam	CL, CH	A-6, A-7	0	0	92-100	85-100	75-100	65-95	35-65	15-35
In:												
Ilion	0-9	Silt loam	OL, SM, ML	A-5, A-7	0	0	80-100	70-100	60-100	45-95	40-50	5-15
	9-18	Silt loam, silty clay loam, channery loam	OL, SM, ML	A-5, A-7	0	0	80-100	70-100	60-100	45-95	40-50	5-15
	18-32	Silty clay loam, clay loam, channery clay loam	SC, GC-GM, CL-ML, CL	A-4, A-6	0	0-5	80-100	50-95	45-90	35-85	20-30	5-15
	32-40	Silty clay loam, channery silty clay loam, channery silt loam, loam	GC-GM, SC, CL-ML, CL	A-2, A-4, A-6	0	0-10	65-95	50-86	40-80	30-75	20-30	5-15
	40-72	Channery silty clay loam, channery silt loam, loam	SC, GC-GM, CL-ML, CL	A-2, A-4, A-6	0	0-10	65-92	50-86	40-80	30-75	20-30	5-15

Table 21.--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	
Lm:												
Limerick--------	0-5	Silt loam	ML	A-4	0	0	100	100	85-100	55-90	---	NP
	5-44	Silt loam, very fine sandy loam	ML	A-4	0	0	100	100	85-100	55-90	---	NP
	44-72	Loamy fine sand, loamy sand	SM	A-2	0	0	100	100	50-80	15-35	---	NP
Saco------------	0-13	Silt loam	ML	A-4	0	0	95-100	92-100	85-100	55-90	---	NP
	13-23	Silt loam, very fine sandy loam	ML	A-4	0	0	95-100	92-100	85-100	55-90	---	NP
	23-72	Silt loam, very fine sandy loam, loamy fine sand, loamy sand	ML, SM, GM	A-4, A-2	0	0	60-100	45-100	30-100	5-90	---	NP
LY:												
Lyme, very stony	0-8	Fine sandy loam	SM, ML	A-2, A-4	1-8	0-10	70-95	60-92	35-80	15-60	15-25	NP-3
	8-23	Sandy loam, gravelly fine sandy loam, loam	ML, SM	A-2, A-4	0-5	0-10	70-95	55-92	35-80	15-60	15-25	NP-3
	23-35	Sandy loam, gravelly sandy loam, fine sandy loam	SM	A-4	0-5	0-15	60-92	50-86	30-60	15-40	15-25	NP-3
	35-72	Loamy sand, gravelly loamy coarse sand, sandy loam, gravelly sandy loam, fine sandy loam	SM	A-2, A-4	0-5	0-15	55-92	50-86	25-60	10-40	15-25	NP-3
Ma:												
Madalin---------	0-9	Mucky silty clay loam	OH, OL, ML, MH	A-6, A-7	0	0	95-100	95-100	85-100	65-95	35-65	10-25
	9-36	Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	95-100	95-100	85-100	70-95	38-65	20-35
	36-72	Clay, silty clay, silty clay loam	CH, CL	A-6, A-7	0	0	85-100	70-100	65-100	60-95	35-60	15-35

Table 21.--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	
MnB:												
Manlius, undulating-----	0-5	Channery silt loam	CL-ML, GM, ML, SM	A-2, A-4	0	0-15	65-90	50-75	40-75	30-70	25-35	4-10
	5-21	Channery silt loam, very channery silt loam, very channery loam	GM, GC-GM, GW-GM	A-1, A-2, A-4	0	0-15	50-75	25-60	15-55	10-50	25-35	4-10
	21-24	Extremely channery silt loam, very channery loam	GW-GM, GM, GC-GM	A-1, A-2, A-4	0	1-20	40-75	20-55	15-50	10-45	25-35	4-10
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Nassau----------	0-3	Channery silt loam	GM, ML, SM	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GC-GM, GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
MnC:												
Manlius, rolling	0-5	Channery silt loam	CL-ML, SM, ML, GM	A-2, A-4	0	0-15	65-90	50-75	40-75	30-70	25-35	4-10
	5-21	Channery silt loam, very channery silt loam, very channery loam	GC-GM, GM, GW-GM	A-1, A-2, A-4	0	0-15	50-75	25-60	15-55	10-50	25-35	4-10
	21-24	Extremely channery silt loam, very channery loam	GM, GW-GM, GC-GM	A-1, A-2, A-4	0	1-20	40-75	20-55	15-50	10-45	25-35	4-10
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
MnC:												
Nassau----------	0-3	Channery silt loam	ML, SM, GM	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GM, GC-GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
MnD:												
Manlius, hilly--	0-5	Channery silt loam	GM, CL-ML, ML, SM	A-2, A-4	0	0-15	65-90	50-75	40-75	30-70	25-35	4-10
	5-21	Channery silt loam, very channery silt loam, very channery loam	GM, GW-GM, GC-GM	A-1, A-2, A-4	0	0-15	50-75	25-60	15-55	10-50	25-35	4-10
	21-24	Extremely channery silt loam, very channery loam	GW-GM, GC-GM, GM	A-1, A-2, A-4	0	1-20	40-75	20-55	15-50	10-45	25-35	4-10
	24-34	Unweathered bedrock			---	---	---	---	---	---	---	---
Nassau----------	0-3	Channery silt loam	SM, ML, GM	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GM, GC-GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
Ms:												
Massena---------	0-8	Silt loam	CL, SC	A-6, A-7	0-1	0-10	65-95	50-92	30-85	15-70	35-45	12-20
	8-26	Fine sandy loam, gravelly sandy loam, loam	SC-SM, CL, CL-ML, GC	A-1, A-2, A-4, A-6	0-1	0-10	65-95	50-92	30-80	15-60	15-25	5-15
	26-30	Loam, gravelly fine sandy loam, very gravelly sandy loam	SC, GC, CL-ML, CL	A-1, A-2, A-4, A-6	0-5	0-20	55-95	35-92	20-80	10-60	15-25	5-15

Table 21.--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	
Ms:												
Massena	30-58	Gravelly fine sandy loam, very gravelly sandy loam, loam	SC, GC, CL-ML, CL	A-1, A-2, A-4, A-6	0-5	0-20	50-95	35-92	20-80	10-60	15-25	5-15
	58-72	Very gravelly fine sandy loam, sandy loam, gravelly loam	CL-ML, CL, SC, GC	A-1, A-2, A-4, A-6	0-5	0-20	50-95	35-92	20-80	10-60	15-25	5-15
MvA:												
Mosherville	0-9	Silt loam	ML	A-4	0	0-2	85-100	65-99	45-95	30-85	28-40	4-8
	9-16	Loam, silt loam, gravelly very fine sandy loam, fine sandy loam	SM, ML, GM	A-2, A-4	0	0-2	85-100	65-99	45-95	30-85	10-15	2-4
	16-47	Gravelly fine sandy loam, fine sandy loam, loam	ML, SM, GM	A-2, A-4	0-2	0-10	70-96	60-92	40-80	25-60	10-15	2-4
	47-72	Gravelly fine sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-2	0-10	70-96	60-92	40-80	25-60	10-15	2-4
MvB:												
Mosherville	0-9	Silt loam	ML	A-4	0	0-2	85-100	65-99	45-95	30-85	28-40	4-8
	9-16	Loam, silt loam, gravelly very fine sandy loam, fine sandy loam	SM, ML, GM	A-2, A-4	0	0-2	85-100	65-99	45-95	30-85	10-15	2-4
	16-47	Gravelly fine sandy loam, fine sandy loam, loam	GM, SM, ML	A-2, A-4	0-2	0-10	70-96	60-92	40-80	25-60	10-15	2-4
	47-72	Gravelly fine sandy loam, fine sandy loam, loam	SM, ML, GM	A-2, A-4	0-2	0-10	70-96	60-92	40-80	25-60	10-15	2-4

Table 21.--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	
MxB:												
Mosherville-----	0-9	Silt loam	ML	A-4	0	0-2	85-100	65-99	45-95	30-85	28-40	4-8
	9-16	Loam, silt loam, gravelly very fine sandy loam, fine sandy loam	SM, ML, GM	A-2, A-4	0	0-2	85-100	65-99	45-95	30-85	10-15	2-4
	16-47	Gravelly fine sandy loam, fine sandy loam, loam	ML, SM, GM	A-2, A-4	0-2	0-10	70-96	60-92	40-80	25-60	10-15	2-4
	47-72	Gravelly fine sandy loam, fine sandy loam, loam	GM, SM, ML	A-2, A-4	0-2	0-10	70-96	60-92	40-80	25-60	10-15	2-4
Hornell, undulating-----	0-6	Channery silt loam	ML, GC, CL, GM	A-6, A-7	0	0-5	60-100	50-100	45-100	35-90	35-49	10-22
	6-17	Channery silty clay loam, silty clay, clay	ML, CH, CL, GC	A-6, A-7	0	0-5	60-96	50-95	45-90	40-85	35-55	10-30
	17-24	Very channery silty clay loam, channery silty clay, channery clay	CH, CL, GC, ML	A-2, A-6, A-7	0	0-5	45-87	25-80	20-75	20-70	35-55	10-30
	24-34	Weathered bedrock			---	---	---	---	---	---	---	---
NaC:												
Nassau, rolling-	0-3	Channery silt loam	SM, GM, ML	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GC-GM, GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop----	0-10	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
NaD:												
Nassau, hilly---	0-3	Channery silt loam	SM, ML, GM	A-2, A-4	0	0-15	60-90	50-75	40-70	30-65	25-37	1-10
	3-18	Very channery silt loam, very channery loam	GC-GM, GM	A-1, A-2, A-4	0	1-20	35-75	20-50	15-45	10-40	20-35	1-10
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop----	0-10	Unweathered bedrock			---	---	---	---	---	---	---	---
Ne:												
Newstead--------	0-5	Loam	ML, SM	A-2, A-4, A-1	0	0-10	70-96	50-96	30-90	15-75	25-40	2-10
	5-11	Sandy loam, gravelly loam, fine sandy loam, silt loam	CL-ML, GM, ML, SM	A-1, A-2, A-4	0	0-10	65-96	50-96	30-90	15-75	15-25	2-7
	11-21	Gravelly loam, sandy loam, fine sandy loam, silt loam	CL-ML, GM, ML, SM	A-1, A-2, A-4	0	0-20	65-96	50-96	30-90	15-75	15-25	2-7
	21-23	Gravelly silt loam, very gravelly loam, flaggy sandy loam	CL-ML, GM, ML, SM	A-1, A-2, A-4	0	0-30	60-92	35-80	15-70	10-60	15-25	2-7
	23-33	Unweathered bedrock			---	---	---	---	---	---	---	---
NuB:												
Nunda-----------	0-8	Silt loam	ML, SM	A-4, A-7	0	0-5	75-100	65-100	55-100	35-85	35-45	5-15
	8-13	Silt loam, very fine sandy loam, channery silt loam, gravelly loam	CL, GC, GC-GM, ML	A-4	0	0-5	75-100	65-100	55-100	35-85	20-30	2-10
	13-17	Silty clay loam, clay loam, channery silty clay loam, gravelly silty clay loam	GC-GM, GC, CL-ML, CL	A-4, A-6	0-1	0-8	70-95	60-92	55-85	40-80	20-30	5-15

Table 21.--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	
NuB:												
Nunda----------	17-32	Channery silty clay loam, clay loam, gravelly silty clay loam	CL-ML, GC-GM, CL, GC	A-4, A-6	0-1	0-8	70-95	55-92	55-90	40-80	20-30	5-15
	32-72	Channery silt loam, gravelly loam	GC-GM, CL, CL-ML, GC	A-4, A-6	0-2	0-10	70-95	60-92	50-85	35-75	20-30	5-15
NuC:												
Nunda-----------	0-8	Silt loam	ML, SM	A-4, A-7	0	0-5	75-100	65-100	55-100	35-85	35-45	5-15
	8-13	Silt loam, very fine sandy loam, channery silt loam, gravelly loam	GC-GM, ML, GC, CL	A-4	0	0-5	75-100	65-100	55-100	35-85	20-30	2-10
	13-17	Silty clay loam, clay loam, channery silty clay loam, gravelly silty clay loam	CL-ML, GC, GC-GM, CL	A-4, A-6	0-1	0-8	70-95	60-92	55-85	40-80	20-30	5-15
	17-32	Channery silty clay loam, clay loam, gravelly silty clay loam	GC-GM, CL, GC, CL-ML	A-4, A-6	0-1	0-8	70-95	55-92	55-90	40-80	20-30	5-15
	32-72	Channery silt loam, gravelly loam	CL-ML, CL, GC, GC-GM	A-4, A-6	0-2	0-10	70-95	60-92	50-85	35-75	20-30	5-15
OaA:												
Oakville--------	0-7	Loamy fine sand	SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	7-37	Loamy fine sand, fine sand	SM, SP-SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	37-90	Loamy fine sand, fine sand, sand	SM, SP-SM	A-2-4	0	0	100	95-100	55-80	5-35	---	---

Table 21.--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	
OaB:												
Oakville, undulating-----	0-7	Loamy fine sand	SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	7-37	Loamy fine sand, fine sand	SM, SP-SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	37-90	Loamy fine sand, fine sand, sand	SM, SP-SM	A-2-4	0	0	100	95-100	55-80	5-35	---	---
OaC:												
Oakville, rolling--------	0-7	Loamy fine sand	SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	7-37	Loamy fine sand, fine sand	SM, SP-SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	37-90	Loamy fine sand, fine sand, sand	SM, SP-SM	A-2-4	0	0	100	95-100	55-80	5-35	---	---
OaD:												
Oakville, hilly-	0-7	Loamy fine sand	SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	7-37	Loamy fine sand, fine sand	SP-SM, SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	37-90	Loamy fine sand, fine sand, sand	SM, SP-SM	A-2-4	0	0	100	95-100	55-80	5-35	---	---
OeE:												
Oakville--------	0-7	Loamy fine sand	SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	7-37	Loamy fine sand, fine sand	SM, SP-SM	A-2	0	0	100	95-100	55-80	10-35	---	NP
	37-90	Loamy fine sand, fine sand, sand	SM, SP-SM	A-2-4	0	0	100	95-100	55-80	5-35	---	---

Table 21.--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	
OeE:												
Windsor---------	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-11	Loamy sand	SM	A-2	0	0	95-100	85-100	50-80	20-35	---	NP
	11-25	Loamy sand, sand, loamy fine sand	SM	A-2	0	0	95-100	85-100	45-80	5-30	---	NP
	25-72	Sand, loamy sand, fine sand	SP-SM, SP, SM	A-1, A-2, A-3	0	0	95-100	80-100	40-75	3-30	---	NP
Pm:												
Palms-----------	0-28	Muck	PT	A-8	0	0	---	---	---	---	---	---
	28-42	Silt loam, silty clay loam, fine sandy loam, clay loam, gravelly sandy loam	SC, CL, CL-ML, SC-SM	A-2, A-4, A-6, A-7	0	0	80-100	65-100	40-100	20-95	20-45	5-20
	42-72	Loamy very fine sand, fine sandy loam, gravelly sandy loam, fine sand	CL-ML, SC, SC-SM, CL	A-2, A-4, A-6, A-7	0	0	80-100	65-100	40-95	15-60	20-45	5-20
Pp:												
Palms, ponded---	0-28	Muck	PT	A-8	0	0	---	---	---	---	---	---
	28-42	Silt loam, silty clay loam, fine sandy loam, clay loam, gravelly sandy loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6, A-7	0	0	80-100	65-100	40-100	20-95	20-45	5-20
	42-72	Loamy very fine sand, fine sandy loam, gravelly sandy loam, fine sand	SC-SM, SC, CL-ML, CL	A-2, A-4, A-6, A-7	0	0	80-100	65-100	40-95	15-60	20-45	5-20

Table 21.--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	
PtB:												
Paxton----------	0-7	Gravelly sandy loam	GM, ML, SM	A-2, A-4	0-1	0-10	65-95	55-92	35-75	15-55	15-40	NP-10
	7-31	Gravelly sandy loam, fine sandy loam, loam	GM, ML, SM	A-2, A-4	0-2	0-10	65-95	55-92	35-75	15-55	15-30	NP-7
	31-72	Gravelly fine sandy loam, gravelly sandy loam, loam	GM, ML, SM	A-1, A-2, A-4	0-4	0-10	65-95	55-92	35-75	15-55	15-30	NP-7
PtC:												
Paxton----------	0-7	Gravelly sandy loam	SM, ML, GM	A-2, A-4	0-1	0-10	65-95	55-92	35-75	15-55	15-40	NP-10
	7-31	Gravelly sandy loam, fine sandy loam, loam	GM, ML, SM	A-2, A-4	0-2	0-10	65-95	55-92	35-75	15-55	15-30	NP-7
	31-72	Gravelly fine sandy loam, gravelly sandy loam, loam	GM, ML, SM	A-1, A-2, A-4	0-4	0-10	65-95	55-92	35-75	15-55	15-30	NP-7
Pu:												
Pits, Quarry----	0-72				---	---	---	---	---	---	---	---
Pv:												
Pits, Sand And Gravel---------	0-72	Sand, loamy sand, very gravelly sand, very gravelly loamy coarse sand, gravelly loamy sand	SP, SM, GP, SP-SM, GP-GM, GM	A-1, A-2, A-3	0-1	0-15	45-100	20-100	15-75	0-30	15-20	NP
PwA:												
Pittstown-------	0-11	Silt loam	CL-ML, ML	A-4, A-6, A-7	0-1	0-5	80-95	65-92	55-90	35-75	25-45	4-15
	11-23	Gravelly silt loam, gravelly loam, silt loam, very fine sandy loam	SM, SC-SM, CL-ML, ML	A-4	0-2	0-15	70-95	65-92	50-85	35-75	20-35	2-10

Table 21.--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	
PwA:												
Pittstown-------	23-72	Gravelly loam, channery silt loam, channery loam, very fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0-2	0-15	70-85	60-85	50-75	30-65	20-30	2-10
PwB:												
Pittstown-------	0-11	Silt loam	CL-ML, ML	A-4, A-6, A-7	0-1	0-5	80-95	65-92	55-90	35-75	25-45	4-15
	11-23	Gravelly silt loam, gravelly loam, silt loam, very fine sandy loam	SC-SM, CL-ML, ML, SM	A-4	0-2	0-15	70-95	65-92	50-85	35-75	20-35	2-10
	23-72	Gravelly loam, channery silt loam, channery loam, very fine sandy loam	CL-ML, SM, SC-SM, ML	A-4, A-2	0-2	0-15	70-85	60-85	50-75	30-65	20-30	2-10
Ra:												
Raynham---------	0-12	Silt loam	CL-ML, ML	A-4	0	0	100	95-100	80-100	55-95	15-25	NP-5
	12-34	Very fine sandy loam, silt loam, silt	CL-ML, ML	A-4	0	0	100	95-100	80-100	50-95	15-25	NP-5
	34-72	Very fine sandy loam, silt loam, silt	CL-ML, ML	A-4	0	0	100	95-100	80-100	45-90	15-25	NP-5
RhA:												
Rhinebeck-------	0-11	Silt loam	CL, CH, MH, ML	A-6, A-7	0	0	85-100	65-100	60-100	50-95	30-55	10-25
	11-37	Silty clay loam, silty clay	CH, CL	A-6, A-7	0	0	90-100	85-100	80-100	70-95	30-55	15-30
	37-72	Silty clay loam, clay, silty clay	CH, CL	A-6, A-7	0	0	90-100	85-100	75-100	70-95	30-55	15-30

Table 21.--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	
RhB:												
Rhinebeck-------	0-11	Silt loam	ML, MH, CL, CH	A-6, A-7	0	0	85-100	65-100	60-100	50-95	30-55	10-25
	11-37	Silty clay loam, silty clay	CL, CH	A-6, A-7	0	0	90-100	85-100	80-100	70-95	30-55	15-30
	37-72	Silty clay loam, clay, silty clay	CL, CH	A-7, A-6	0	0	90-100	85-100	75-100	70-95	30-55	15-30
Sa:												
Scarboro--------	0-3	Mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	3-10	Mucky loamy sand	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	85-100	45-85	5-50	---	NP
	10-29	Sand, fine sand, loamy sand	SM, SP-SM	A-1, A-2, A-3	0	0	95-100	85-100	45-80	5-35	---	NP
	29-72	Sand, loamy sand, fine sand, coarse sand	SM, SP-SM	A-1, A-2, A-3	0	0	92-100	85-100	45-80	5-35	---	NP
SCB:												
Schroon, stony--	0-2	Slightly decomposed plant material	PT	A-8	0-4	0-15	---	---	---	---	---	---
	2-6	Sandy loam	SM, CL-ML, ML, SC-SM	A-2, A-4	0-4	0-15	70-95	50-92	30-80	15-60	15-25	NP-5
	6-22	Sandy loam, gravelly fine sandy loam, loam	SM, GM, ML	A-1-b, A-2, A-4	0-4	0-15	70-95	50-92	30-80	15-60	15-25	NP-3
	22-72	Sandy loam, fine sandy loam, gravelly coarse sandy loam	SM, GM	A-1-b, A-2, A-4	0-4	0-15	70-95	50-92	30-70	15-45	---	NP

Table 21.--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	
SeA:												
Scio------------	0-4	Silt loam	ML	A-4	0	0	95-100	95-100	85-100	55-90	15-20	NP-4
	4-23	Silt loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-100	55-90	15-20	NP-4
	23-72	Silt loam, very fine sandy loam, stratified very gravelly sand	GP-GM, ML, SM, SP	A-1, A-2, A-3, A-4	0	0	50-100	30-100	15-100	2-90	10-15	NP-4
SeB:												
Scio------------	0-4	Silt loam	ML	A-4	0	0	95-100	95-100	85-100	55-90	15-20	NP-4
	4-23	Silt loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-100	55-90	15-20	NP-4
	23-72	Silt loam, very fine sandy loam, stratified very gravelly sand	GP-GM, ML, SM, SP	A-1, A-2, A-3, A-4	0	0	50-100	30-100	15-100	2-90	10-15	NP-4
Sh:												
Shaker----------	0-9	Very fine sandy loam	ML	A-4	0	0	100	92-100	65-95	30-75	15-30	NP-6
	9-31	Very fine sandy loam, loam, fine sandy loam, sandy loam	ML, SM	A-2, A-4	0	0	100	92-100	65-95	30-75	15-30	NP-6
	31-72	Silty clay, stratified clay to silt loam, silty clay loam, clay	CL	A-6, A-7	0	0	100	95-100	80-100	70-95	30-50	12-25

Table 21.--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	
SKB:												
Skerry, very stony----------	0-2	Slightly decomposed plant material			0-7	0-10	---	---	---	---	---	---
	2-4	Highly decomposed plant material			0-7	0-10	---	---	---	---	---	---
	4-5	Fine sandy loam	SC-SM, SM, SC	A-1-b, A-2, A-4	1-7	0-10	70-95	60-92	35-70	15-45	15-30	NP-10
	5-26	Fine sandy loam, gravelly fine sandy loam, gravelly sandy loam	SC-SM, SM, SC	A-2, A-4	0-7	0-10	70-95	60-92	35-70	15-45	15-25	NP-10
	26-72	Gravelly sandy loam, gravelly loamy sand, gravelly fine sandy loam, loamy sand	GP-GM, SM, SP-SM, GM	A-1, A-2	0-7	0-15	65-95	45-92	30-70	10-35	---	NP
Sn:												
Sun-------------	0-1	Moderately decomposed plant material	PT	A-8	0-1	0-10	---	---	---	---	---	---
	1-13	Silt loam	ML, CL-ML, SC-SM, SM	A-1, A-2, A-4	0-1	0-10	85-100	50-100	30-100	20-90	10-15	NP-5
	13-34	Silt loam, gravelly fine sandy loam, sandy loam	SM, SC-SM, ML, GM	A-1, A-2, A-4	0-5	0-10	65-100	50-100	30-95	15-80	10-15	NP-5
	34-72	Cobbly fine sandy loam, cobbly loam, very gravelly sandy loam	GC-GM, SM, SC-SM, GM	A-1, A-2, A-4	0-7	1-25	60-95	40-85	25-70	15-55	10-15	NP-5

Table 21.--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	
StA:												
Sutton----------	0-9	Loam	SM, ML	A-2, A-4	0-1	0-10	70-95	50-92	35-80	20-65	15-30	NP-5
	9-30	Fine sandy loam, sandy loam, loam, gravelly fine sandy loam	SM, ML, GM	A-2, A-4	0-5	0-15	70-95	50-92	30-80	15-60	15-25	NP-3
	30-72	Sandy loam, gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-1, A-2, A-4	0-7	0-15	60-95	40-92	25-75	10-45	---	NP
StB:												
Sutton----------	0-9	Loam	ML, SM	A-2, A-4	0-1	0-10	70-95	50-92	35-80	20-65	15-30	NP-5
	9-30	Fine sandy loam, sandy loam, loam, gravelly fine sandy loam	GM, SM, ML	A-2, A-4	0-5	0-15	70-95	50-92	30-80	15-60	15-25	NP-3
	30-72	Sandy loam, gravelly sandy loam, gravelly fine sandy loam	SM, GM	A-1, A-2, A-4	0-7	0-15	60-95	40-92	25-75	10-45	---	NP
Te:												
Teel------------	0-12	Silt loam	CL-ML, CL, ML	A-4, A-6	0	0	100	92-100	80-100	50-90	15-35	2-15
	12-38	Silt loam, very fine sandy loam	ML, CL, CL-ML	A-4, A-6	0	0	100	92-100	80-100	50-90	15-35	2-15
	38-72	Silt loam, very fine sandy loam	CL, SM, ML, SC-SM	A-4, A-6	0	0-5	85-100	80-100	65-100	40-90	15-35	NP-15
Tg:												
Tioga-----------	0-9	Fine sandy loam	SM, ML	A-4	0	0	100	85-100	60-100	40-85	15-15	NP-4
	9-29	Fine sandy loam, loam, silt loam, gravelly fine sandy loam	GM, ML, SM	A-1, A-2, A-4	0	0	65-100	50-100	35-95	20-80	15-15	NP-2

Table 21.--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	
Tg:												
Tioga-----------	29-72	Fine sandy loam, silt loam, gravelly loam, very gravelly loamy sand	SM, ML, GW-GM, GM	A-1, A-2, A-3, A-4	0	0-10	50-100	30-100	15-90	3-80	15-15	NP-2
TNC:												
Tunbridge, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	4-6	Loam	ML, SM, GM	A-2, A-4	1-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	6-7	Fine sandy loam, loam, gravelly sandy loam, channery fine sandy loam	SM, ML	A-2, A-5	0-5	0-15	65-96	50-92	35-90	20-80	15-50	NP-6
	7-16	Loam, sandy loam, gravelly fine sandy loam, channery fine sandy loam	SM, ML	A-4, A-2	0-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	16-31	Sandy loam, gravelly fine sandy loam, channery fine sandy loam	SM, ML	A-2, A-4	0-5	0-15	65-96	50-92	35-90	20-70	15-20	NP-2
	31-41	Unweathered bedrock			---	---	---	---	---	---	---	---
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---	---	---	---
	1-5	Loam	ML, GM, SM	A-1, A-2, A-4	1-5	0-10	70-95	65-92	40-85	15-70	15-30	NP-6
	5-13	Sandy loam, loam, channery fine sandy loam, gravelly silt loam	SM, ML, GM	A-4, A-1, A-2	0-5	0-10	70-95	60-92	35-85	15-70	15-30	NP-4

Table 21.--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	
TNC:												
Lyman, very bouldery-------	13-23	Unweathered bedrock			---	---	---	---	---	---	---	---
TNE:												
Tunbridge, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	4-6	Loam	SM, GM, ML	A-2, A-4	1-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	6-7	Fine sandy loam, loam, gravelly sandy loam, channery fine sandy loam	ML, SM	A-2, A-5	0-5	0-15	65-96	50-92	35-90	20-80	15-50	NP-6
	7-16	Loam, sandy loam, gravelly fine sandy loam, channery fine sandy loam	SM, ML	A-4, A-2	0-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	16-31	Sandy loam, gravelly fine sandy loam, channery fine sandy loam	ML, SM	A-2, A-4	0-5	0-15	65-96	50-92	35-90	20-70	15-20	NP-2
	31-41	Unweathered bedrock			---	---	---	---	---	---	---	---
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---	---	---	---
	1-5	Loam	ML, SM, GM	A-1, A-2, A-4	1-5	0-10	70-95	65-92	40-85	15-70	15-30	NP-6
	5-13	Sandy loam, loam, channery fine sandy loam, gravelly silt loam	SM, ML, GM	A-1, A-2, A-4	0-5	0-10	70-95	60-92	35-85	15-70	15-30	NP-4
	13-23	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
TNF:												
Tunbridge, very bouldery-------	0-2	Slightly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	2-4	Highly decomposed plant material	PT	A-8	0-5	0-15	---	---	---	---	---	---
	4-6	Loam	SM, GM, ML	A-2, A-4	1-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	6-7	Fine sandy loam, loam, gravelly sandy loam, channery fine sandy loam	ML, SM	A-2, A-5	0-5	0-15	65-96	50-92	35-90	20-80	15-50	NP-6
	7-16	Loam, sandy loam, gravelly fine sandy loam, channery fine sandy loam	SM, ML	A-4, A-2	0-5	0-15	65-96	50-92	35-90	20-80	15-20	NP-2
	16-31	Sandy loam, gravelly fine sandy loam, channery fine sandy loam	ML, SM	A-2, A-4	0-5	0-15	65-96	50-92	35-90	20-70	15-20	NP-2
	31-41	Unweathered bedrock			---	---	---	---	---	---	---	---
Lyman, very bouldery-------	0-1	Slightly decomposed plant material	PT	A-8	0-5	0-10	---	---	---	---	---	---
	1-5	Loam	GM, ML, SM	A-4, A-1, A-2	1-5	0-10	70-95	65-92	40-85	15-70	15-30	NP-6
	5-13	Sandy loam, loam, channery fine sandy loam, gravelly silt loam	ML, SM, GM	A-1, A-2, A-4	0-5	0-10	70-95	60-92	35-85	15-70	15-30	NP-4
	13-23	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 21.--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	
Ud: Udipsamments, dredged--------	0-6	Loamy sand	SM, SW, SP	A-1, A-2	---	0-15	65-100	55-100	30-70	0-30	---	NP
	6-72	Loamy sand	SM, SW, SP	A-1, A-2	---	0-15	65-100	55-100	30-70	0-30	---	NP
Ue: Udorthents, smoothed-------	0-5	Silt loam	CL, SM, ML, SC	A-2, A-4, A-6	---	0-5	80-100	75-100	55-100	30-90	0-45	NP-15
	5-72	Silt loam, channery loam, very gravelly sandy loam	GM, SC, ML, CL	A-1, A-2, A-4, A-6	---	0-15	45-100	15-100	15-100	5-90	0-45	NP-15
UnB: Unadilla--------	0-2	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-8	Very fine sandy loam	ML	A-4	0	0	100	92-100	80-100	50-90	15-35	NP-10
	8-42	Very fine sandy loam, silt loam	ML, CL-ML	A-4	0	0	100	92-100	80-100	50-90	15-25	NP-10
	42-72	Loamy very fine sand, gravelly sand, very gravelly sand, fine sandy loam	GM, SP, GP, SM	A-1, A-2, A-3	0	0-10	45-100	30-100	15-95	1-55	---	NP
UnC: Unadilla--------	0-2	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-8	Very fine sandy loam	ML	A-4	0	0	100	92-100	80-100	50-90	15-35	NP-10
	8-42	Very fine sandy loam, silt loam	ML, CL-ML	A-4	0	0	100	92-100	80-100	50-90	15-25	NP-10
	42-72	Loamy very fine sand, gravelly sand, very gravelly sand, fine sandy loam	SP, SM, GP, GM	A-1, A-2, A-3	0	0-10	45-100	30-100	15-95	1-55	---	NP

Table 21.--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	
W:												
Water	---	---	---	---	---	---	---	---	---	---	---	---
Wa:												
Wareham	0-2	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-8	Loamy sand	SM	A-1, A-2	0	0	85-100	75-100	40-75	15-35	---	NP
	8-19	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-1, A-2, A-3	0	0	85-100	75-100	40-75	5-35	---	NP
	19-72	Sand, loamy sand, loamy coarse sand, coarse sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0-5	50-100	30-100	20-75	0-30	---	NP
WnA:												
Windsor	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-11	Loamy sand	SM	A-2	0	0	95-100	85-100	50-80	20-35	---	NP
	11-25	Loamy sand, sand, loamy fine sand	SM	A-2	0	0	95-100	85-100	45-80	5-30	---	NP
	25-72	Sand, loamy sand, fine sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	95-100	80-100	40-75	3-30	---	NP
WnB:												
Windsor, undulating	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-11	Loamy sand	SM	A-2	0	0	95-100	85-100	50-80	20-35	---	NP
	11-25	Loamy sand, sand, loamy fine sand	SM	A-2	0	0	95-100	85-100	45-80	5-30	---	NP
	25-72	Sand, loamy sand, fine sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	95-100	80-100	40-75	3-30	---	NP

Table 21.--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	
WnC:												
Windsor, rolling	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-11	Loamy sand	SM	A-2	0	0	95-100	85-100	50-80	20-35	---	NP
	11-25	Loamy sand, sand, loamy fine sand	SM	A-2	0	0	95-100	85-100	45-80	5-30	---	NP
	25-72	Sand, loamy sand, fine sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	95-100	80-100	40-75	3-30	---	NP
WnD:												
Windsor, hilly--	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-11	Loamy sand	SM	A-2	0	0	95-100	85-100	50-80	20-35	---	NP
	11-25	Loamy sand, sand, loamy fine sand	SM	A-2	0	0	95-100	85-100	45-80	5-30	---	NP
	25-72	Sand, loamy sand, fine sand	SP-SM, SM, SP	A-1, A-2, A-3	0	0	95-100	80-100	40-75	3-30	---	NP
WO:												
Wonsqueak, ponded---------	0-31	Muck	PT	A-8	0	0	---	---	---	---	---	---
	31-72	Fine sandy loam, gravelly loam, silt loam, silty clay loam	CL-ML, SM, ML	A-4	0-5	0-10	80-100	70-100	55-100	30-95	15-40	NP-10
WrB:												
Woodbridge------	0-5	Loam	ML, SM	A-4, A-2	0-1	0-10	70-95	50-92	35-80	20-65	15-40	NP-10
	5-26	Loam, fine sandy loam, gravelly sandy loam	ML, GM, SM	A-2, A-4	0-1	0-10	70-95	50-92	35-80	20-65	15-30	NP-7
	26-72	Sandy loam, gravelly fine sandy loam, loam	ML, GM, SM	A-1, A-2, A-4	0-5	0-15	70-95	50-92	30-80	15-60	15-30	NP-7

Table 22.--Physical Properties of the Soils

(Entries under "Erosion factors--T" apply to the entire profile. Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
ALA:									
Allagash------------	0-1	---	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---	3
	1-3	2-20	0.95-1.25	0.6-2	0.16-0.22	0.0-2.9	2.0-8.0	.28	
	3-35	2-18	1.20-1.50	0.6-2	0.10-0.24	0.0-2.9	0.2-2.0	.28	
	35-72	1-7	1.35-1.65	6-20	0.06-0.18	0.0-2.9	0.0-0.2	.28	
ALC:									
Allagash------------	0-1	---	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---	3
	1-3	2-20	0.95-1.25	0.6-2	0.16-0.22	0.0-2.9	2.0-8.0	.28	
	3-35	2-18	1.20-1.50	0.6-2	0.10-0.24	0.0-2.9	0.2-2.0	.28	
	35-72	1-7	1.35-1.65	6-20	0.06-0.18	0.0-2.9	0.0-0.2	.28	
ALE:									
Allagash------------	0-1	---	0.10-0.40	0.2-6	0.20-0.50	0.0-2.9	35-100	---	3
	1-3	2-20	0.95-1.25	0.6-2	0.16-0.22	0.0-2.9	2.0-8.0	.28	
	3-35	2-18	1.20-1.50	0.6-2	0.10-0.24	0.0-2.9	0.2-2.0	.28	
	35-72	1-7	1.35-1.65	6-20	0.06-0.18	0.0-2.9	0.0-0.2	.28	
As:									
Allis---------------	0-9	12-27	1.10-1.40	0.06-0.2	0.16-0.21	0.0-2.9	3.0-10	.43	3
	9-25	35-60	1.20-1.50	0.0015-0.2	0.08-0.14	3.0-5.9	0.0-1.0	.32	
	25-35	---	---	0.0015-0.6	---	---	---	---	
	35-45	---	---	0.0015-0.2	---	---	---	---	
BCC:									
Becket, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	35-100	---	3
	2-5	2-20	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	2.0-8.0	.17	
	5-32	2-18	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	---	.28	
	32-72	2-18	1.60-1.75	0.06-0.6	0.03-0.09	0.0-2.9	---	.17	
BCE:									
Becket, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	35-100	---	3
	2-5	2-20	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	2.0-8.0	.17	
	5-32	2-18	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	---	.28	
	32-72	2-18	1.60-1.75	0.06-0.6	0.03-0.09	0.0-2.9	---	.17	
BEC:									
Becket, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	35-100	---	3
	2-5	2-20	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	2.0-8.0	.17	
	5-32	2-18	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	---	.28	
	32-72	2-18	1.60-1.75	0.06-0.6	0.03-0.09	0.0-2.9	---	.17	
Tunbridge, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	2-4	---	0.10-0.40	0.2-6	0.55-0.65	---	35-100	---	
	4-6	2-20	0.80-1.20	0.6-6	0.11-0.20	0.0-2.9	2.0-6.0	.20	
	6-7	2-18	1.20-1.40	0.6-6	0.10-0.21	0.0-2.9	0.5-4.0	.20	
	7-16	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.5-4.0	.20	
	16-31	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.0-0.2	.20	
	31-41	---	---	0.0000-0.0015	---	---	---	---	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
BEE:									
Becket, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	0.0-2.9	35-100	---	3
	2-5	2-20	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	2.0-8.0	.17	
	5-32	2-18	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	---	.28	
	32-72	2-18	1.60-1.75	0.06-0.6	0.03-0.09	0.0-2.9	---	.17	
Tunbridge, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	2-4	---	0.10-0.40	0.2-6	0.55-0.65	---	35-100	---	
	4-6	2-20	0.80-1.20	0.6-6	0.11-0.20	0.0-2.9	2.0-6.0	.20	
	6-7	2-18	1.20-1.40	0.6-6	0.10-0.21	0.0-2.9	0.5-4.0	.20	
	7-16	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.5-4.0	.20	
	16-31	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.0-0.2	.20	
	31-41	---	---	0.0000-0.0015	---	---	---	---	
BHC:									
Berkshire, very bouldery-----------	0-2	---	0.10-0.40	0.2-6	0.20-0.60	---	35-100	---	3
	2-6	2-18	1.10-1.15	0.6-6	0.06-0.22	0.0-2.9	2.0-6.0	.20	
	6-30	2-18	1.15-1.30	0.6-6	0.10-0.20	0.0-2.9	---	.32	
	30-72	1-18	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	---	.24	
BHE:									
Berkshire, very bouldery-----------	0-2	---	0.10-0.40	0.2-6	0.20-0.60	---	35-100	---	3
	2-6	2-18	1.10-1.15	0.6-6	0.06-0.22	0.0-2.9	2.0-6.0	.20	
	6-30	2-18	1.15-1.30	0.6-6	0.10-0.20	0.0-2.9	---	.32	
	30-72	1-18	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	---	.24	
BLC:									
Berkshire, very bouldery-----------	0-2	---	0.10-0.40	0.2-6	0.20-0.60	---	35-100	---	3
	2-6	2-18	1.10-1.15	0.6-6	0.06-0.22	0.0-2.9	2.0-6.0	.20	
	6-30	2-18	1.15-1.30	0.6-6	0.10-0.20	0.0-2.9	---	.32	
	30-72	1-18	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	---	.24	
Tunbridge, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	2-4	---	0.10-0.40	0.2-6	0.55-0.65	---	35-100	---	
	4-6	2-20	0.80-1.20	0.6-6	0.11-0.20	0.0-2.9	2.0-6.0	.20	
	6-7	2-18	1.20-1.40	0.6-6	0.10-0.21	0.0-2.9	0.5-4.0	.20	
	7-16	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.5-4.0	.20	
	16-31	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.0-0.2	.20	
	31-41	---	---	0.0000-0.0015	---	---	---	---	
BLE:									
Berkshire, very bouldery-----------	0-2	---	0.10-0.40	0.2-6	0.20-0.60	---	35-100	---	3
	2-6	2-18	1.10-1.15	0.6-6	0.06-0.22	0.0-2.9	2.0-6.0	.20	
	6-30	2-18	1.15-1.30	0.6-6	0.10-0.20	0.0-2.9	---	.32	
	30-72	1-18	1.30-1.60	0.6-6	0.10-0.18	0.0-2.9	---	.24	
Tunbridge, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	2-4	---	0.10-0.40	0.2-6	0.55-0.65	---	35-100	---	
	4-6	2-20	0.80-1.20	0.6-6	0.11-0.20	0.0-2.9	2.0-6.0	.20	
	6-7	2-18	1.20-1.40	0.6-6	0.10-0.21	0.0-2.9	0.5-4.0	.20	
	7-16	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.5-4.0	.20	
	16-31	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.0-0.2	.20	
	31-41	---	---	0.0000-0.0015	---	---	---	---	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
BmB:									
Bernardston	0-10	2-20	1.00-1.15	0.6-2	0.15-0.22	0.0-2.9	2.0-6.0	.28	3
	10-26	2-18	1.25-1.50	0.6-2	0.13-0.20	0.0-2.9	---	.37	
	26-72	1-18	1.75-1.90	0.06-0.2	0.07-0.16	0.0-2.9	---	.28	
BmC:									
Bernardston	0-10	2-20	1.00-1.15	0.6-2	0.15-0.22	0.0-2.9	2.0-6.0	.28	3
	10-26	2-18	1.25-1.50	0.6-2	0.13-0.20	0.0-2.9	---	.37	
	26-72	1-18	1.75-1.90	0.06-0.2	0.07-0.16	0.0-2.9	---	.28	
BmD:									
Bernardston	0-10	2-20	1.00-1.15	0.6-2	0.15-0.22	0.0-2.9	2.0-6.0	.28	3
	10-26	2-18	1.25-1.50	0.6-2	0.13-0.20	0.0-2.9	---	.37	
	26-72	1-18	1.75-1.90	0.06-0.2	0.07-0.16	0.0-2.9	---	.28	
BnB:									
Bernardston	0-10	2-20	1.00-1.15	0.6-2	0.15-0.22	0.0-2.9	2.0-6.0	.28	3
	10-26	2-18	1.25-1.50	0.6-2	0.13-0.20	0.0-2.9	---	.37	
	26-72	1-18	1.75-1.90	0.06-0.2	0.07-0.16	0.0-2.9	---	.28	
Manlius	0-5	2-18	1.10-1.40	0.6-2	0.10-0.18	0.0-2.9	1.0-6.0	.28	3
	5-21	2-18	1.20-1.50	0.6-2	0.08-0.12	0.0-2.9	---	.20	
	21-24	2-18	1.70-1.95	0.6-2	0.03-0.09	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Nassau	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
BnC:									
Bernardston	0-10	2-20	1.00-1.15	0.6-2	0.15-0.22	0.0-2.9	2.0-6.0	.28	3
	10-26	2-18	1.25-1.50	0.6-2	0.13-0.20	0.0-2.9	---	.37	
	26-72	1-18	1.75-1.90	0.06-0.2	0.07-0.16	0.0-2.9	---	.28	
Manlius	0-5	2-18	1.10-1.40	0.6-2	0.10-0.18	0.0-2.9	1.0-6.0	.28	3
	5-21	2-18	1.20-1.50	0.6-2	0.08-0.12	0.0-2.9	---	.20	
	21-24	2-18	1.70-1.95	0.6-2	0.03-0.09	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Nassau	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
BnD:									
Bernardston	0-10	2-20	1.00-1.15	0.6-2	0.15-0.22	0.0-2.9	2.0-6.0	.28	3
	10-26	2-18	1.25-1.50	0.6-2	0.13-0.20	0.0-2.9	---	.37	
	26-72	1-18	1.75-1.90	0.06-0.2	0.07-0.16	0.0-2.9	---	.28	
Manlius	0-5	2-18	1.10-1.40	0.6-2	0.10-0.18	0.0-2.9	1.0-6.0	.28	3
	5-21	2-18	1.20-1.50	0.6-2	0.08-0.12	0.0-2.9	---	.20	
	21-24	2-18	1.70-1.95	0.6-2	0.03-0.09	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Nassau	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
BOC:									
Bice, stony	0-5	2-18	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.20	3
	5-25	2-18	1.40-1.65	0.6-6	0.05-0.20	0.0-2.9	---	.20	
	25-30	2-18	1.40-1.65	0.6-6	0.05-0.20	0.0-2.9	---	.24	
	30-72	2-18	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	---	.24	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
BOE:									
Bice, stony	0-5	2-18	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.20	3
	5-25	2-18	1.40-1.65	0.6-6	0.05-0.20	0.0-2.9	---	.20	
	25-30	2-18	1.40-1.65	0.6-6	0.05-0.20	0.0-2.9	---	.24	
	30-72	2-18	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	---	.24	
BPC:									
Bice, stony	0-5	2-18	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.20	3
	5-25	2-18	1.40-1.65	0.6-6	0.05-0.20	0.0-2.9	---	.20	
	25-30	2-18	1.40-1.65	0.6-6	0.05-0.20	0.0-2.9	---	.24	
	30-72	2-18	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	---	.24	
Woodstock, stony	0-1	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	2
	1-3	2-18	0.60-0.80	2-6	0.14-0.20	0.0-2.9	2.0-9.0	.24	
	3-16	2-18	0.80-1.50	2-6	0.14-0.18	0.0-2.9	---	.20	
	16-26	---	---	0.0000-0.0015	---	---	---	---	
BPE:									
Bice, stony	0-5	2-18	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.20	3
	5-25	2-18	1.40-1.65	0.6-6	0.05-0.20	0.0-2.9	---	.20	
	25-30	2-18	1.40-1.65	0.6-6	0.05-0.20	0.0-2.9	---	.24	
	30-72	2-18	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	---	.24	
Woodstock, stony	0-1	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	2
	1-3	2-18	0.60-0.80	2-6	0.14-0.20	0.0-2.9	2.0-9.0	.24	
	3-16	2-18	0.80-1.50	2-6	0.14-0.18	0.0-2.9	---	.20	
	16-26	---	---	0.0000-0.0015	---	---	---	---	
BtB:									
Broadalbin	0-9	7-18	1.10-1.40	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.37	3
	9-30	7-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.0-2.0	.28	
	30-43	2-18	1.75-2.00	0.06-0.2	0.09-0.14	0.0-2.9	0.0-0.2	.28	
	43-74	2-18	1.20-1.70	0.06-0.2	0.09-0.16	0.0-2.9	0.0-0.2	.28	
	74-88	2-18	1.75-1.95	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.2	.28	
BtC:									
Broadalbin	0-9	7-18	1.10-1.40	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.37	3
	9-30	7-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.0-2.0	.28	
	30-43	2-18	1.75-2.00	0.06-0.2	0.09-0.14	0.0-2.9	0.0-0.2	.28	
	43-74	2-18	1.20-1.70	0.06-0.2	0.09-0.16	0.0-2.9	0.0-0.2	.28	
	74-88	2-18	1.75-1.95	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.2	.28	
BtD:									
Broadalbin	0-9	7-18	1.10-1.40	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.37	3
	9-30	7-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.0-2.0	.28	
	30-43	2-18	1.75-2.00	0.06-0.2	0.09-0.14	0.0-2.9	0.0-0.2	.28	
	43-74	2-18	1.20-1.70	0.06-0.2	0.09-0.16	0.0-2.9	0.0-0.2	.28	
	74-88	2-18	1.75-1.95	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.2	.28	
BvB:									
Broadalbin	0-9	7-18	1.10-1.40	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.37	3
	9-30	7-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.0-2.0	.28	
	30-43	2-18	1.75-2.00	0.06-0.2	0.09-0.14	0.0-2.9	0.0-0.2	.28	
	43-74	2-18	1.20-1.70	0.06-0.2	0.09-0.16	0.0-2.9	0.0-0.2	.28	
	74-88	2-18	1.75-1.95	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.2	.28	
Manlius	0-5	2-18	1.10-1.40	0.6-2	0.10-0.18	0.0-2.9	1.0-6.0	.28	3
	5-21	2-18	1.20-1.50	0.6-2	0.08-0.12	0.0-2.9	---	.20	
	21-24	2-18	1.70-1.95	0.6-2	0.03-0.09	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Nassau	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Erosion factors T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
BvC:									
Broadalbin----------	0-9	7-18	1.10-1.40	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.37	3
	9-30	7-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.0-2.0	.28	
	30-43	2-18	1.75-2.00	0.06-0.2	0.09-0.14	0.0-2.9	0.0-0.2	.28	
	43-74	2-18	1.20-1.70	0.06-0.2	0.09-0.16	0.0-2.9	0.0-0.2	.28	
	74-88	2-18	1.75-1.95	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.2	.28	
Manlius-------------	0-5	2-18	1.10-1.40	0.6-2	0.10-0.18	0.0-2.9	1.0-6.0	.28	3
	5-21	2-18	1.20-1.50	0.6-2	0.08-0.12	0.0-2.9	---	.20	
	21-24	2-18	1.70-1.95	0.6-2	0.03-0.09	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Nassau--------------	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
BvD:									
Broadalbin----------	0-9	7-18	1.10-1.40	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.37	3
	9-30	7-18	1.20-1.50	0.6-2	0.09-0.19	0.0-2.9	0.0-2.0	.28	
	30-43	2-18	1.75-2.00	0.06-0.2	0.09-0.14	0.0-2.9	0.0-0.2	.28	
	43-74	2-18	1.20-1.70	0.06-0.2	0.09-0.16	0.0-2.9	0.0-0.2	.28	
	74-88	2-18	1.75-1.95	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.2	.28	
Manlius-------------	0-5	2-18	1.10-1.40	0.6-2	0.10-0.18	0.0-2.9	1.0-6.0	.28	3
	5-21	2-18	1.20-1.50	0.6-2	0.08-0.12	0.0-2.9	---	.20	
	21-24	2-18	1.70-1.95	0.6-2	0.03-0.09	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Nassau--------------	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
BxB:									
Burdett-------------	0-7	7-27	1.20-1.50	0.6-2	0.15-0.20	0.0-2.9	2.0-8.0	.37	3
	7-11	7-27	1.20-1.50	0.6-2	0.13-0.18	0.0-2.9	0.0-2.0	.37	
	11-33	27-35	1.60-1.85	0.06-0.2	0.08-0.14	0.0-2.9	0.0-0.5	.28	
	33-72	18-35	1.60-1.85	0.06-0.2	0.08-0.14	0.0-2.9	0.0-0.2	.28	
CcB:									
Charlton------------	0-14	3-20	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.24	3
	14-36	3-18	1.40-1.65	0.6-6	0.07-0.20	0.0-2.9	---	.24	
	36-72	1-18	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	---	.24	
CcC:									
Charlton------------	0-14	3-20	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.24	3
	14-36	3-18	1.40-1.65	0.6-6	0.07-0.20	0.0-2.9	---	.24	
	36-72	1-18	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	---	.24	
CcD:									
Charlton------------	0-14	3-20	1.00-1.25	0.6-6	0.08-0.23	0.0-2.9	2.0-6.0	.24	3
	14-36	3-18	1.40-1.65	0.6-6	0.07-0.20	0.0-2.9	---	.24	
	36-72	1-18	1.45-1.70	0.6-6	0.05-0.16	0.0-2.9	---	.24	
CeB:									
Chatfield, undulating---------	0-1	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	3
	1-2	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	
	2-8	2-18	1.10-1.40	0.6-6	0.12-0.16	0.0-2.9	2.0-6.0	.24	
	8-24	2-18	1.20-1.50	0.6-6	0.08-0.18	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
CeB:									
Hollis, undulating--	0-1	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	1
	1-3	2-18	1.10-1.40	0.6-6	0.12-0.20	0.0-2.9	2.0-6.0	.24	
	3-19	2-18	1.30-1.55	0.6-6	0.06-0.18	0.0-2.9	---	.32	
	19-29	---	---	0.0000-0.0015	---	---	---	---	
CeC:									
Chatfield, rolling--	0-1	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	3
	1-2	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	
	2-8	2-18	1.10-1.40	0.6-6	0.12-0.16	0.0-2.9	2.0-6.0	.24	
	8-24	2-18	1.20-1.50	0.6-6	0.08-0.18	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Hollis, rolling-----	0-1	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	1
	1-3	2-18	1.10-1.40	0.6-6	0.12-0.20	0.0-2.9	2.0-6.0	.24	
	3-19	2-18	1.30-1.55	0.6-6	0.06-0.18	0.0-2.9	---	.32	
	19-29	---	---	0.0000-0.0015	---	---	---	---	
CfD:									
Chatfield, hilly----	0-1	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	3
	1-2	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	
	2-8	2-18	1.10-1.40	0.6-6	0.12-0.16	0.0-2.9	2.0-6.0	.24	
	8-24	2-18	1.20-1.50	0.6-6	0.08-0.18	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Hollis, hilly-------	0-1	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	1
	1-3	2-18	1.10-1.40	0.6-6	0.12-0.20	0.0-2.9	2.0-6.0	.24	
	3-19	2-18	1.30-1.55	0.6-6	0.06-0.18	0.0-2.9	---	.32	
	19-29	---	---	0.0000-0.0015	---	---	---	---	
Cg:									
Cheektowaga---------	0-12	1-15	1.20-1.50	6-20	0.15-0.17	0.0-2.9	9.0-15	.28	5
	12-21	1-9	1.20-1.50	6-20	0.05-0.07	0.0-2.9	0.0-2.0	.17	
	21-38	28-60	1.10-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	0.0-1.0	.28	
	38-72	28-60	1.10-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	0.0-1.0	.28	
ChB:									
Chenango, loamy substratum---------	0-6	2-18	1.20-1.50	0.6-6	0.11-0.19	0.0-2.9	2.0-6.0	.32	3
	6-30	2-18	1.25-1.55	0.6-6	0.07-0.15	0.0-2.9	0.0-1.0	.17	
	30-72	1-18	1.45-1.65	0.6-6	0.01-0.15	0.0-2.9	0.0-0.2	.17	
ChC:									
Chenango, loamy subtratum----------	0-6	2-18	1.20-1.50	0.6-6	0.11-0.19	0.0-2.9	2.0-6.0	.32	3
	6-30	2-18	1.25-1.55	0.6-6	0.07-0.15	0.0-2.9	0.0-1.0	.17	
	30-72	1-18	1.45-1.65	0.6-6	0.01-0.15	0.0-2.9	0.0-0.2	.17	
ClA:									
Claverack-----------	0-8	1-7	1.20-1.50	6-20	0.08-0.09	0.0-2.9	2.0-6.0	.17	3
	8-27	1-7	1.20-1.50	6-20	0.05-0.07	0.0-2.9	0.0-1.0	.17	
	27-31	3-18	1.20-1.50	0.6-2	0.12-0.20	0.0-2.9	0.0-0.2	.17	
	31-72	27-50	1.15-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	0.0-0.2	.28	
ClB:									
Claverack-----------	0-8	1-7	1.20-1.50	6-20	0.08-0.09	0.0-2.9	2.0-6.0	.17	3
	8-27	1-7	1.20-1.50	6-20	0.05-0.07	0.0-2.9	0.0-1.0	.17	
	27-31	3-18	1.20-1.50	0.6-2	0.12-0.20	0.0-2.9	0.0-0.2	.17	
	31-72	27-50	1.15-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	0.0-0.2	.28	
COC:									
Colton--------------	0-1	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	3
	1-3	1-18	1.10-1.40	6-101	0.09-0.12	0.0-2.9	2.0-6.0	.20	
	3-41	0-5	1.25-1.55	6-101	0.02-0.05	0.0-2.9	0.0-5.0	.17	
	41-72	0-3	1.45-1.65	20-101	0.01-0.02	0.0-2.9	0.0-0.2	.17	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
COE:									
Colton--------------	0-1	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	3
	1-3	1-18	1.10-1.40	6-101	0.09-0.12	0.0-2.9	2.0-6.0	.20	
	3-41	0-5	1.25-1.55	6-101	0.02-0.05	0.0-2.9	0.0-5.0	.17	
	41-72	0-3	1.45-1.65	20-101	0.01-0.02	0.0-2.9	0.0-0.2	.17	
Cs:									
Cosad---------------	0-8	2-10	1.20-1.50	6-20	0.14-0.16	0.0-2.9	3.0-7.0	.28	3
	8-20	1-3	1.20-1.50	6-20	0.05-0.07	0.0-2.9	---	.17	
	20-27	1-3	1.20-1.50	6-20	0.05-0.07	0.0-2.9	---	.17	
	27-72	30-60	1.15-1.40	0.0015-0.2	0.12-0.17	3.0-5.9	---	.28	
DeA:									
Deerfield-----------	0-10	2-10	1.00-1.20	2-20	0.07-0.13	0.0-2.9	1.0-6.0	.17	5
	10-26	1-7	1.20-1.45	6-20	0.01-0.13	0.0-2.9	---	.17	
	26-72	0-5	1.40-1.50	20-101	0.01-0.08	0.0-2.9	---	.17	
DeB:									
Deerfield, undulating---------	0-10	2-10	1.00-1.20	2-20	0.07-0.13	0.0-2.9	1.0-6.0	.17	5
	10-26	1-7	1.20-1.45	6-20	0.01-0.13	0.0-2.9	---	.17	
	26-72	0-5	1.40-1.50	20-101	0.01-0.08	0.0-2.9	---	.17	
ElB:									
Elmridge------------	0-8	2-20	1.00-1.30	2-6	0.18-0.22	0.0-2.9	2.0-6.0	.28	3
	8-18	2-20	1.35-1.60	2-6	0.12-0.20	0.0-2.9	---	.24	
	18-39	27-60	1.55-1.80	0.0015-0.2	0.09-0.15	3.0-5.9	---	.43	
	39-72	40-60	1.55-1.80	0.0015-0.2	0.09-0.15	3.0-5.9	---	.43	
FaB:									
Farmington, rocky---	0-9	4-20	1.10-1.40	0.6-2	0.11-0.19	0.0-2.9	2.0-6.0	.32	2
	9-15	4-20	1.20-1.50	0.6-2	0.07-0.18	0.0-2.9	---	.32	
	15-25	---	---	0.0000-20	---	---	---	---	
FcC:									
Farmington, very rocky--------------	0-9	4-20	1.10-1.40	0.6-2	0.11-0.19	0.0-2.9	2.0-6.0	.32	2
	9-15	4-20	1.20-1.50	0.6-2	0.07-0.18	0.0-2.9	---	.32	
	15-25	---	---	0.0000-20	---	---	---	---	
Fl:									
Fluvaquents, frequently flooded-	0-10	2-20	1.10-1.50	0.2-20	0.06-0.18	0.0-2.9	2.0-20	.32	3
	10-72	2-35	1.20-1.60	0.06-20	0.03-0.16	0.0-2.9	---	.28	
FU:									
Fluvaquents, flooded	0-10	2-20	1.10-1.50	0.2-20	0.06-0.18	0.0-2.9	2.0-20	.32	3
	10-72	2-35	1.20-1.60	0.06-20	0.03-0.16	0.0-2.9	---	.28	
Udipsamments--------	0-6	0-2	1.00-1.30	20-101	0.03-0.08	0.0-2.9	0.5-6.0	.10	5
	6-72	0-2	1.00-1.30	20-101	0.03-0.08	0.0-2.9	0.0-1.0	.10	
GaB:									
Galway--------------	0-6	5-18	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	2.0-6.0	.32	3
	6-28	5-18	1.20-1.50	0.6-2	0.08-0.19	0.0-2.9	0.0-1.0	.24	
	28-30	5-18	1.20-1.50	0.6-2	0.08-0.19	0.0-2.9	0.0-0.2	.24	
	30-40	---	---	0.0000-20	---	---	---	---	
GaC:									
Galway--------------	0-6	5-18	1.10-1.40	0.6-2	0.15-0.21	0.0-2.9	2.0-6.0	.32	3
	6-28	5-18	1.20-1.50	0.6-2	0.08-0.19	0.0-2.9	0.0-1.0	.24	
	28-30	5-18	1.20-1.50	0.6-2	0.08-0.19	0.0-2.9	0.0-0.2	.24	
	30-40	---	---	0.0000-20	---	---	---	---	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
HcA:									
Hinckley------------	0-6	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	1.0-6.0	.17	3
	6-20	0-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	---	.17	
	20-72	0-3	1.30-1.50	20-101	0.01-0.06	0.0-2.9	---	.10	
HcB:									
Hinckley, undulating	0-6	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	1.0-6.0	.17	3
	6-20	0-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	---	.17	
	20-72	0-3	1.30-1.50	20-101	0.01-0.06	0.0-2.9	---	.10	
HcC:									
Hinckley, rolling---	0-6	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	1.0-6.0	.17	3
	6-20	0-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	---	.17	
	20-72	0-3	1.30-1.50	20-101	0.01-0.06	0.0-2.9	---	.10	
HcD:									
Hinckley, hilly-----	0-6	1-8	1.00-1.20	6-20	0.06-0.12	0.0-2.9	1.0-6.0	.17	3
	6-20	0-5	1.20-1.40	6-20	0.01-0.10	0.0-2.9	---	.17	
	20-72	0-3	1.30-1.50	20-101	0.01-0.06	0.0-2.9	---	.10	
HoA:									
Hoosic--------------	0-9	2-18	1.10-1.40	2-20	0.05-0.12	0.0-2.9	2.0-6.0	.17	3
	9-18	2-18	1.25-1.55	2-20	0.05-0.11	0.0-2.9	---	.17	
	18-24	0-5	1.45-1.65	2-20	0.01-0.05	0.0-2.9	---	.17	
	24-72	0-5	1.45-1.65	20-101	0.01-0.05	0.0-2.9	---	.17	
HoB:									
Hoosic, undulating--	0-9	2-18	1.10-1.40	2-20	0.05-0.12	0.0-2.9	2.0-6.0	.17	3
	9-18	2-18	1.25-1.55	2-20	0.05-0.11	0.0-2.9	---	.17	
	18-24	0-5	1.45-1.65	2-20	0.01-0.05	0.0-2.9	---	.17	
	24-72	0-5	1.45-1.65	20-101	0.01-0.05	0.0-2.9	---	.17	
HoC:									
Hoosic, rolling-----	0-9	2-18	1.10-1.40	2-20	0.05-0.12	0.0-2.9	2.0-6.0	.17	3
	9-18	2-18	1.25-1.55	2-20	0.05-0.11	0.0-2.9	---	.17	
	18-24	0-5	1.45-1.65	2-20	0.01-0.05	0.0-2.9	---	.17	
	24-72	0-5	1.45-1.65	20-101	0.01-0.05	0.0-2.9	---	.17	
HuB:									
Hudson--------------	0-8	10-27	1.00-1.25	0.2-2	0.16-0.21	3.0-5.9	2.0-6.0	.49	3
	8-13	27-60	1.15-1.40	0.2-2	0.13-0.17	3.0-5.9	0.0-1.0	.28	
	13-32	27-60	1.15-1.40	0.0015-0.2	0.13-0.17	3.0-5.9	0.0-0.5	.28	
	32-72	25-60	1.15-1.40	0.0015-0.2	0.12-0.20	3.0-5.9	0.0-0.2	.28	
HuC:									
Hudson--------------	0-8	10-27	1.00-1.25	0.2-2	0.16-0.21	3.0-5.9	2.0-6.0	.49	3
	8-13	27-60	1.15-1.40	0.2-2	0.13-0.17	3.0-5.9	0.0-1.0	.28	
	13-32	27-60	1.15-1.40	0.0015-0.2	0.13-0.17	3.0-5.9	0.0-0.5	.28	
	32-72	25-60	1.15-1.40	0.0015-0.2	0.12-0.20	3.0-5.9	0.0-0.2	.28	
HuD:									
Hudson, hilly-------	0-8	10-27	1.00-1.25	0.2-2	0.16-0.21	3.0-5.9	2.0-6.0	.49	3
	8-13	27-60	1.15-1.40	0.2-2	0.13-0.17	3.0-5.9	0.0-1.0	.28	
	13-32	27-60	1.15-1.40	0.0015-0.2	0.13-0.17	3.0-5.9	0.0-0.5	.28	
	32-72	25-60	1.15-1.40	0.0015-0.2	0.12-0.20	3.0-5.9	0.0-0.2	.28	
HuE:									
Hudson--------------	0-8	10-27	1.00-1.25	0.2-2	0.16-0.21	3.0-5.9	2.0-6.0	.49	3
	8-13	27-60	1.15-1.40	0.2-2	0.13-0.17	3.0-5.9	0.0-1.0	.28	
	13-32	27-60	1.15-1.40	0.0015-0.2	0.13-0.17	3.0-5.9	0.0-0.5	.28	
	32-72	25-60	1.15-1.40	0.0015-0.2	0.12-0.20	3.0-5.9	0.0-0.2	.28	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
In:									
Ilion	0-9	10-27	1.10-1.40	0.2-2	0.17-0.21	0.0-2.9	3.0-10	.37	3
	9-18	10-35	1.10-1.40	0.2-2	0.17-0.21	0.0-2.9	0.0-3.0	.37	
	18-32	27-35	1.60-1.85	0.0015-0.2	0.11-0.17	3.0-5.9	0.0-1.0	.37	
	32-40	10-35	1.60-1.90	0.0015-0.2	0.08-0.14	0.0-2.9	0.0-0.2	.28	
	40-72	10-35	1.70-1.90	0.0015-0.2	0.08-0.14	0.0-2.9	0.0-0.2	.28	
Lm:									
Limerick	0-5	4-18	1.10-1.50	0.6-2	0.18-0.30	0.0-2.9	2.0-10	.49	5
	5-44	2-18	1.10-1.50	0.6-2	0.18-0.26	0.0-2.9	---	.49	
	44-72	1-6	1.20-1.50	0.6-2	0.18-0.25	0.0-2.9	---	.49	
Saco	0-13	4-18	1.10-1.50	0.6-2	0.18-0.30	0.0-2.9	2.0-15	.49	5
	13-23	2-18	1.10-1.50	0.6-2	0.18-0.26	0.0-2.9	---	.49	
	23-72	1-18	1.20-1.50	0.6-2	0.18-0.25	0.0-2.9	---	.49	
LY:									
Lyme, very stony	0-8	3-18	1.00-1.25	0.6-6	0.06-0.24	0.0-2.9	2.0-12	.24	3
	8-23	3-18	1.35-1.60	0.6-6	0.05-0.20	0.0-2.9	---	.32	
	23-35	2-18	1.45-1.70	0.6-6	0.04-0.16	0.0-2.9	---	.24	
	35-72	1-18	1.45-1.70	0.6-6	0.04-0.16	0.0-2.9	---	.24	
Ma:									
Madalin	0-9	27-40	1.00-1.25	0.06-0.2	0.18-0.24	3.0-5.9	6.0-15	.37	5
	9-36	27-60	1.20-1.40	0.0015-0.2	0.12-0.13	3.0-5.9	---	.28	
	36-72	25-60	1.15-1.40	0.0015-0.2	0.12-0.13	3.0-5.9	---	.28	
MnB:									
Manlius, undulating	0-5	2-18	1.10-1.40	0.6-2	0.10-0.18	0.0-2.9	1.0-6.0	.28	3
	5-21	2-18	1.20-1.50	0.6-2	0.08-0.12	0.0-2.9	---	.20	
	21-24	2-18	1.70-1.95	0.6-2	0.03-0.09	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Nassau	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
MnC:									
Manlius, rolling	0-5	2-18	1.10-1.40	0.6-2	0.10-0.18	0.0-2.9	1.0-6.0	.28	3
	5-21	2-18	1.20-1.50	0.6-2	0.08-0.12	0.0-2.9	---	.20	
	21-24	2-18	1.70-1.95	0.6-2	0.03-0.09	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Nassau	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
MnD:									
Manlius, hilly	0-5	2-18	1.10-1.40	0.6-2	0.10-0.18	0.0-2.9	1.0-6.0	.28	3
	5-21	2-18	1.20-1.50	0.6-2	0.08-0.12	0.0-2.9	---	.20	
	21-24	2-18	1.70-1.95	0.6-2	0.03-0.09	0.0-2.9	---	.20	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
Nassau	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
Ms:									
Massena	0-8	4-20	1.10-1.40	0.6-2	0.14-0.20	0.0-2.9	2.0-8.0	.28	3
	8-26	4-18	1.20-1.50	0.06-0.6	0.08-0.15	0.0-2.9	---	.20	
	26-30	4-18	1.70-1.95	0.06-0.6	0.06-0.14	0.0-2.9	---	.20	
	30-58	4-18	1.70-1.95	0.06-0.6	0.06-0.14	0.0-2.9	---	.20	
	58-72	4-18	1.70-1.95	0.06-0.6	0.06-0.14	0.0-2.9	---	.20	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
MvA:									
Mosherville---------	0-9	4-18	1.10-1.40	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.37	3
	9-16	4-18	1.20-1.50	0.6-2	0.10-0.20	0.0-2.9	0.0-2.0	.28	
	16-47	4-18	1.75-2.00	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.0	.28	
	47-72	4-18	1.75-1.90	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.0	.28	
MvB:									
Mosherville---------	0-9	4-18	1.10-1.40	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.37	3
	9-16	4-18	1.20-1.50	0.6-2	0.10-0.20	0.0-2.9	0.0-2.0	.28	
	16-47	4-18	1.75-2.00	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.0	.28	
	47-72	4-18	1.75-1.90	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.0	.28	
MxB:									
Mosherville---------	0-9	4-18	1.10-1.40	0.6-2	0.14-0.21	0.0-2.9	2.0-6.0	.37	3
	9-16	4-18	1.20-1.50	0.6-2	0.10-0.20	0.0-2.9	0.0-2.0	.28	
	16-47	4-18	1.75-2.00	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.0	.28	
	47-72	4-18	1.75-1.90	0.06-0.2	0.02-0.04	0.0-2.9	0.0-0.0	.28	
Hornell, undulating-	0-6	12-27	1.10-1.40	0.6-2	0.16-0.21	0.0-2.9	2.0-8.0	.37	3
	6-17	35-60	1.20-1.50	0.06-0.2	0.11-0.13	3.0-5.9	0.0-1.0	.28	
	17-24	35-60	1.30-1.55	0.06-0.2	0.06-0.12	3.0-5.9	0.0-0.0	.28	
	24-34	---	---	0.0000-0.0015	---	---	---	---	
NaC:									
Nassau, rolling-----	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
Rock Outcrop--------	0-10	---	---	0.0015-0.2	---	---	---	---	-
NaD:									
Nassau, hilly-------	0-3	2-18	1.10-1.40	0.6-2	0.08-0.16	0.0-2.9	1.0-6.0	.20	2
	3-18	2-18	1.20-1.50	0.6-2	0.07-0.12	0.0-2.9	0.0-1.0	.20	
	18-28	---	---	0.0015-0.2	---	---	---	---	
Rock Outcrop--------	0-10	---	---	0.0015-0.2	---	---	---	---	-
Ne:									
Newstead------------	0-5	4-18	1.10-1.40	0.6-2	0.12-0.18	0.0-2.9	3.0-10	.28	3
	5-11	4-18	1.20-1.50	0.6-2	0.07-0.17	0.0-2.9	---	.20	
	11-21	4-18	1.20-1.50	0.6-2	0.07-0.17	0.0-2.9	---	.20	
	21-23	4-18	1.20-1.50	0.6-2	0.04-0.15	0.0-2.9	---	.20	
	23-33	---	---	0.0000-20	---	---	---	---	
NuB:									
Nunda---------------	0-8	7-25	1.10-1.40	0.6-2	0.15-0.20	0.0-2.9	2.0-6.0	.37	3
	8-13	7-25	1.20-1.50	0.6-2	0.13-0.18	0.0-2.9	0.0-2.0	.32	
	13-17	20-35	1.45-1.65	0.2-0.6	0.08-0.14	0.0-2.9	0.0-0.5	.28	
	17-32	20-35	1.45-1.65	0.2-0.6	0.08-0.14	0.0-2.9	0.0-0.5	.28	
	32-72	14-27	1.55-1.85	0.0015-0.2	0.08-0.14	0.0-2.9	0.0-0.0	.28	
NuC:									
Nunda---------------	0-8	7-25	1.10-1.40	0.6-2	0.15-0.20	0.0-2.9	2.0-6.0	.37	3
	8-13	7-25	1.20-1.50	0.6-2	0.13-0.18	0.0-2.9	0.0-2.0	.32	
	13-17	20-35	1.45-1.65	0.2-0.6	0.08-0.14	0.0-2.9	0.0-0.5	.28	
	17-32	20-35	1.45-1.65	0.2-0.6	0.08-0.14	0.0-2.9	0.0-0.5	.28	
	32-72	14-27	1.55-1.85	0.0015-0.2	0.08-0.14	0.0-2.9	0.0-0.0	.28	
OaA:									
Oakville------------	0-7	1-8	1.30-1.55	6-20	0.09-0.12	0.0-2.9	0.5-6.0	.17	5
	7-37	0-8	1.30-1.65	6-20	0.06-0.10	0.0-2.9	---	.15	
	37-90	0-8	1.40-1.65	6-20	0.05-0.07	0.0-2.9	---	.15	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
OaB:									
Oakville, undulating	0-7	1-8	1.30-1.55	6-20	0.09-0.12	0.0-2.9	0.5-6.0	.17	5
	7-37	0-8	1.30-1.65	6-20	0.06-0.10	0.0-2.9	---	.15	
	37-90	0-8	1.40-1.65	6-20	0.05-0.07	0.0-2.9	---	.15	
OaC:									
Oakville, rolling---	0-7	1-8	1.30-1.55	6-20	0.09-0.12	0.0-2.9	0.5-6.0	.17	5
	7-37	0-8	1.30-1.65	6-20	0.06-0.10	0.0-2.9	---	.15	
	37-90	0-8	1.40-1.65	6-20	0.05-0.07	0.0-2.9	---	.15	
OaD:									
Oakville, hilly-----	0-7	1-8	1.30-1.55	6-20	0.09-0.12	0.0-2.9	0.5-6.0	.17	5
	7-37	0-8	1.30-1.65	6-20	0.06-0.10	0.0-2.9	---	.15	
	37-90	0-8	1.40-1.65	6-20	0.05-0.07	0.0-2.9	---	.15	
OeE:									
Oakville------------	0-7	1-8	1.30-1.55	6-20	0.09-0.12	0.0-2.9	0.5-6.0	.17	5
	7-37	0-8	1.30-1.65	6-20	0.06-0.10	0.0-2.9	---	.15	
	37-90	0-8	1.40-1.65	6-20	0.05-0.07	0.0-2.9	---	.15	
Windsor-------------	0-2	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	5
	2-11	1-3	1.00-1.20	6-101	0.09-0.12	0.0-2.9	1.0-5.0	.17	
	11-25	0-3	1.30-1.55	6-101	0.07-0.10	0.0-2.9	---	.17	
	25-72	0-2	1.40-1.65	6-101	0.04-0.10	0.0-2.9	---	.10	
Pm:									
Palms---------------	0-28	---	0.30-0.40	0.2-6	0.35-0.45	---	75-100	---	5
	28-42	7-35	1.45-1.75	0.2-2	0.14-0.22	0.0-2.9	---	.37	
	42-72	2-20	1.45-1.75	0.2-2	0.14-0.22	0.0-2.9	---	.37	
Pp:									
Palms, ponded-------	0-28	---	0.30-0.40	0.2-6	0.35-0.45	---	75-100	---	5
	28-42	7-35	1.45-1.75	0.2-2	0.14-0.22	0.0-2.9	---	.37	
	42-72	2-20	1.20-1.50	0.2-2	0.14-0.22	0.0-2.9	---	.37	
PtB:									
Paxton--------------	0-7	3-18	1.00-1.25	0.6-2	0.08-0.18	0.0-2.9	2.0-6.0	.20	3
	7-31	3-18	1.35-1.60	0.6-2	0.08-0.18	0.0-2.9	---	.32	
	31-72	3-18	1.70-2.00	0.0015-0.2	0.05-0.10	0.0-2.9	---	.24	
PtC:									
Paxton--------------	0-7	3-18	1.00-1.25	0.6-2	0.08-0.18	0.0-2.9	2.0-6.0	.20	3
	7-31	3-18	1.35-1.60	0.6-2	0.08-0.18	0.0-2.9	---	.32	
	31-72	3-18	1.70-2.00	0.0015-0.2	0.05-0.10	0.0-2.9	---	.24	
Pu:									
Pits, Quarry--------	0-72	---	---	0.0000-20	---	---	---	---	-
Pv:									
Pits, Sand And Gravel-------------	0-72	0-5	1.20-1.40	6-101	0.01-0.10	0.0-2.9	---	.17	-
PwA:									
Pittstown-----------	0-11	2-18	1.00-1.30	0.6-2	0.15-0.20	0.0-2.9	2.0-6.0	.28	3
	11-23	2-18	1.30-1.60	0.6-2	0.15-0.20	0.0-2.9	---	.37	
	23-72	2-18	1.70-2.00	0.06-0.6	0.10-0.15	0.0-2.9	---	.28	
PwB:									
Pittstown-----------	0-11	2-18	1.00-1.30	0.6-2	0.15-0.20	0.0-2.9	2.0-6.0	.28	3
	11-23	2-18	1.30-1.60	0.6-2	0.15-0.20	0.0-2.9	---	.37	
	23-72	2-18	1.70-2.00	0.06-0.6	0.10-0.15	0.0-2.9	---	.28	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
Ra:									
Raynham-------------	0-12	3-16	1.20-1.50	0.2-2	0.18-0.24	0.0-2.9	3.0-10	.49	3
	12-34	3-16	1.20-1.50	0.2-2	0.18-0.22	0.0-2.9	0.0-1.0	.64	
	34-72	3-16	1.20-1.60	0.06-0.2	0.17-0.21	0.0-2.9	0.0-0.2	.64	
RhA:									
Rhinebeck-----------	0-11	15-27	1.00-1.25	0.2-0.6	0.16-0.21	3.0-5.9	3.0-9.0	.49	3
	11-37	27-60	1.20-1.40	0.06-0.2	0.12-0.14	3.0-5.9	0.0-1.0	.28	
	37-72	27-60	1.15-1.40	0.06-0.2	0.12-0.14	3.0-5.9	0.0-0.2	.28	
RhB:									
Rhinebeck-----------	0-11	15-27	1.00-1.25	0.2-0.6	0.16-0.21	3.0-5.9	3.0-9.0	.49	3
	11-37	27-60	1.20-1.40	0.06-0.2	0.12-0.14	3.0-5.9	0.0-1.0	.28	
	37-72	27-60	1.15-1.40	0.06-0.2	0.12-0.14	3.0-5.9	0.0-0.2	.28	
Sa:									
Scarboro------------	0-3	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	5
	3-10	1-7	0.70-1.00	6-20	0.10-0.23	0.0-2.9	15-30	.17	
	10-29	0-5	1.15-1.35	6-20	0.04-0.13	0.0-2.9	---	.17	
	29-72	0-2	1.35-1.55	6-20	0.02-0.13	0.0-2.9	---	.10	
SCB:									
Schroon, stony------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	3
	2-6	3-18	1.00-1.25	0.6-2	0.09-0.25	0.0-2.9	2.0-6.0	.24	
	6-22	3-18	1.40-1.65	0.6-2	0.05-0.20	0.0-2.9	---	.24	
	22-72	3-18	1.45-1.65	0.6-2	0.04-0.16	0.0-2.9	---	.24	
SeA:									
Scio----------------	0-4	3-18	1.20-1.50	0.6-2	0.18-0.21	0.0-2.9	2.0-6.0	.49	3
	4-23	3-18	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	---	.17	
	23-72	0-18	1.45-1.65	2-20	0.02-0.19	0.0-2.9	---	.17	
SeB:									
Scio----------------	0-4	3-18	1.20-1.50	0.6-2	0.18-0.21	0.0-2.9	2.0-6.0	.49	3
	4-23	3-18	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	---	.17	
	23-72	0-18	1.45-1.65	2-20	0.02-0.19	0.0-2.9	---	.17	
Sh:									
Shaker--------------	0-9	4-18	1.00-1.25	2-6	0.18-0.22	0.0-2.9	2.0-10	.28	3
	9-31	4-18	1.35-1.60	2-6	0.12-0.20	0.0-2.9	---	.24	
	31-72	19-60	1.55-1.80	0.0015-0.2	0.09-0.15	3.0-5.9	---	.43	
SKB:									
Skerry, very stony--	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	3
	2-4	---	0.10-0.40	0.2-6	0.55-0.65	---	35-100	---	
	4-5	2-18	0.60-1.30	0.6-2	0.06-0.23	0.0-2.9	1.0-6.0	.20	
	5-26	2-18	1.30-1.60	0.6-2	0.06-0.16	0.0-2.9	---	.28	
	26-72	1-10	1.60-1.75	0.06-0.6	0.03-0.09	0.0-2.9	---	.17	
Sn:									
Sun-----------------	0-1	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	5
	1-13	4-18	1.10-1.40	0.6-2	0.12-0.21	0.0-2.9	3.0-15	.28	
	13-34	4-18	1.20-1.50	0.2-2	0.08-0.15	0.0-2.9	0.0-1.0	.20	
	34-72	4-18	1.55-1.75	0.06-0.6	0.06-0.12	0.0-2.9	0.0-1.0	.20	
StA:									
Sutton--------------	0-9	3-18	1.00-1.25	0.6-6	0.12-0.20	0.0-2.9	2.0-6.0	.24	3
	9-30	3-18	1.35-1.60	0.6-6	0.08-0.18	0.0-2.9	---	.28	
	30-72	2-18	1.45-1.70	0.6-6	0.06-0.16	0.0-2.9	---	.24	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
StB:									
Sutton--------------	0-9	3-18	1.00-1.25	0.6-6	0.12-0.20	0.0-2.9	2.0-6.0	.24	3
	9-30	3-18	1.35-1.60	0.6-6	0.08-0.18	0.0-2.9	---	.28	
	30-72	2-18	1.45-1.70	0.6-6	0.06-0.16	0.0-2.9	---	.24	
Te:									
Teel----------------	0-12	5-18	1.15-1.40	0.6-2	0.18-0.21	0.0-2.9	2.0-6.0	.49	5
	12-38	5-18	1.15-1.45	0.6-2	0.17-0.19	0.0-2.9	0.0-1.0	.49	
	38-72	3-18	1.25-1.55	0.6-2	0.12-0.12	0.0-2.9	0.0-1.0	.49	
Tg:									
Tioga---------------	0-9	5-18	1.15-1.40	0.6-6	0.15-0.21	0.0-2.9	2.0-6.0	.37	5
	9-29	5-18	1.15-1.45	0.6-6	0.07-0.20	0.0-2.9	0.0-1.0	.28	
	29-72	3-18	1.25-1.55	0.6-20	0.02-0.20	0.0-2.9	0.0-1.0	.28	
TNC:									
Tunbridge, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	2-4	---	0.10-0.40	0.2-6	0.55-0.65	---	35-100	---	
	4-6	2-20	0.80-1.20	0.6-6	0.11-0.20	0.0-2.9	2.0-6.0	.20	
	6-7	2-18	1.20-1.40	0.6-6	0.10-0.21	0.0-2.9	0.5-4.0	.20	
	7-16	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.5-4.0	.20	
	16-31	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.0-0.2	.20	
	31-41	---	---	0.0000-0.0015	---	---	---	---	
Lyman, very bouldery	0-1	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	1-5	2-18	0.75-1.20	2-6	0.13-0.24	0.0-2.9	2.0-8.0	.20	
	5-13	2-18	0.90-1.40	2-6	0.08-0.28	0.0-2.9	---	.32	
	13-23	---	---	0.0000-0.0015	---	---	---	---	
TNE:									
Tunbridge, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	2-4	---	0.10-0.40	0.2-6	0.55-0.65	---	35-100	---	
	4-6	2-20	0.80-1.20	0.6-6	0.11-0.20	0.0-2.9	2.0-6.0	.20	
	6-7	2-18	1.20-1.40	0.6-6	0.10-0.21	0.0-2.9	0.5-4.0	.20	
	7-16	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.5-4.0	.20	
	16-31	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.0-0.2	.20	
	31-41	---	---	0.0000-0.0015	---	---	---	---	
Lyman, very bouldery	0-1	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	1-5	2-18	0.75-1.20	2-6	0.13-0.24	0.0-2.9	2.0-8.0	.20	
	5-13	2-18	0.90-1.40	2-6	0.08-0.28	0.0-2.9	---	.32	
	13-23	---	---	0.0000-0.0015	---	---	---	---	
TNF:									
Tunbridge, very bouldery-----------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	2-4	---	0.10-0.40	0.2-6	0.55-0.65	---	35-100	---	
	4-6	2-20	0.80-1.20	0.6-6	0.11-0.20	0.0-2.9	2.0-6.0	.20	
	6-7	2-18	1.20-1.40	0.6-6	0.10-0.21	0.0-2.9	0.5-4.0	.20	
	7-16	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.5-4.0	.20	
	16-31	2-18	1.20-1.50	0.6-6	0.09-0.15	0.0-2.9	0.0-0.2	.20	
	31-41	---	---	0.0000-0.0015	---	---	---	---	
Lyman, very bouldery	0-1	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	2
	1-5	2-18	0.75-1.20	2-6	0.13-0.24	0.0-2.9	2.0-8.0	.20	
	5-13	2-18	0.90-1.40	2-6	0.08-0.28	0.0-2.9	---	.32	
	13-23	---	---	0.0000-0.0015	---	---	---	---	

Table 22.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	T
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		
Ud:									
Udipsamments, dredged------------	0-6	0-2	1.00-1.30	6-101	0.03-0.08	0.0-2.9	0.5-6.0	.10	5
	6-72	0-2	1.00-1.30	6-101	0.03-0.08	0.0-2.9	0.0-1.0	.10	
Ue:									
Udorthents, smoothed	0-5	4-20	1.20-1.80	0.06-20	0.06-0.15	0.0-2.9	0.0-5.0	.37	5
	5-72	3-20	1.30-1.90	0.06-20	0.04-0.13	0.0-2.9	---	.32	
UnB:									
Unadilla------------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	3
	2-8	3-18	1.20-1.50	0.6-2	0.18-0.21	0.0-2.9	2.0-6.0	.49	
	8-42	3-18	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	0.0-1.0	.64	
	42-72	1-10	1.45-1.65	2-20	0.01-0.10	0.0-2.9	0.0-0.0	.17	
UnC:									
Unadilla------------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	3
	2-8	3-18	1.20-1.50	0.6-2	0.18-0.21	0.0-2.9	2.0-6.0	.49	
	8-42	3-18	1.20-1.50	0.6-2	0.17-0.20	0.0-2.9	0.0-1.0	.64	
	42-72	1-10	1.45-1.65	2-20	0.01-0.10	0.0-2.9	0.0-0.0	.17	
W:									
Water---------------	---	---	---	---	---	---	---	---	-
Wa:									
Wareham-------------	0-2	---	0.10-0.35	0.2-6	0.20-0.50	---	35-100	---	5
	2-8	1-3	1.00-1.20	6-20	0.06-0.15	0.0-2.9	2.0-9.0	.17	
	8-19	0-3	1.30-1.50	6-20	0.03-0.13	0.0-2.9	0.0-2.0	.17	
	19-72	0-3	1.40-1.60	6-20	0.01-0.13	0.0-2.9	0.0-0.2	.17	
WnA:									
Windsor-------------	0-2	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	5
	2-11	1-3	1.00-1.20	6-101	0.09-0.12	0.0-2.9	1.0-5.0	.17	
	11-25	0-3	1.30-1.55	6-101	0.07-0.10	0.0-2.9	---	.17	
	25-72	0-2	1.40-1.65	6-101	0.04-0.10	0.0-2.9	---	.10	
WnB:									
Windsor, undulating-	0-2	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	5
	2-11	1-3	1.00-1.20	6-101	0.09-0.12	0.0-2.9	1.0-5.0	.17	
	11-25	0-3	1.30-1.55	6-101	0.07-0.10	0.0-2.9	---	.17	
	25-72	0-2	1.40-1.65	6-101	0.04-0.10	0.0-2.9	---	.10	
WnC:									
Windsor, rolling----	0-2	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	5
	2-11	1-3	1.00-1.20	6-101	0.09-0.12	0.0-2.9	1.0-5.0	.17	
	11-25	0-3	1.30-1.55	6-101	0.07-0.10	0.0-2.9	---	.17	
	25-72	0-2	1.40-1.65	6-101	0.04-0.10	0.0-2.9	---	.10	
WnD:									
Windsor, hilly------	0-2	---	0.10-0.40	0.2-6	0.20-0.50	---	35-100	---	5
	2-11	1-3	1.00-1.20	6-101	0.09-0.12	0.0-2.9	1.0-5.0	.17	
	11-25	0-3	1.30-1.55	6-101	0.07-0.10	0.0-2.9	---	.17	
	25-72	0-2	1.40-1.65	6-101	0.04-0.10	0.0-2.9	---	.10	
WO:									
Wonsqueak, ponded---	0-31	---	0.15-0.40	0.2-6	0.35-0.45	---	70-100	---	5
	31-72	4-35	1.20-1.70	0.2-2	0.06-0.16	0.0-2.9	0.0-2.0	---	
WrB:									
Woodbridge----------	0-5	3-18	1.00-1.25	0.6-2	0.10-0.20	0.0-2.9	2.0-6.0	.24	3
	5-26	3-18	1.35-1.60	0.6-2	0.08-0.18	0.0-2.9	---	.32	
	26-72	3-18	1.70-2.00	0.0015-0.2	0.05-0.10	0.0-2.9	---	.24	

Table 23.--Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
ALA:					
Allagash-------------	0-1	---	---	4.5-6.5	0
	1-3	---	---	4.5-6.5	0
	3-35	---	---	4.5-6.5	0
	35-72	---	---	4.5-6.5	0
ALC:					
Allagash-------------	0-1	---	---	4.5-6.5	0
	1-3	---	---	4.5-6.5	0
	3-35	---	---	4.5-6.5	0
	35-72	---	---	4.5-6.5	0
ALE:					
Allagash-------------	0-1	---	---	4.5-6.5	0
	1-3	---	---	4.5-6.5	0
	3-35	---	---	4.5-6.5	0
	35-72	---	---	4.5-6.5	0
As:					
Allis----------------	0-9	---	22-45	3.5-6.0	0
	9-25	---	20-32	3.5-6.0	0
	25-35	---	---	---	---
	35-45	---	---	---	---
BCC:					
Becket, very bouldery	0-2	---	---	3.5-6.5	0
	2-5	---	---	3.5-6.5	0
	5-32	---	---	3.5-6.5	0
	32-72	---	---	4.5-6.5	0
BCE:					
Becket, very bouldery	0-2	---	---	3.5-6.5	0
	2-5	---	---	3.5-6.5	0
	5-32	---	---	3.5-6.5	0
	32-72	---	---	4.5-6.5	0
BEC:					
Becket, very bouldery	0-2	---	---	3.5-6.5	0
	2-5	---	---	3.5-6.5	0
	5-32	---	---	3.5-6.5	0
	32-72	---	---	4.5-6.5	0
Tunbridge, very bouldery------------	0-2	---	---	3.5-6.0	0
	2-4	---	---	3.5-6.0	0
	4-6	---	6.0-12	3.5-6.0	0
	6-7	---	5.0-16	3.5-6.0	0
	7-16	1.0-5.0	---	3.5-6.0	0
	16-31	1.0-5.0	---	5.1-6.5	0
	31-41	---	---	---	---
BEE:					
Becket, very bouldery	0-2	---	---	3.5-6.5	0
	2-5	---	---	3.5-6.5	0
	5-32	---	---	3.5-6.5	0
	32-72	---	---	4.5-6.5	0

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
BEE:					
Tunbridge, very bouldery	0-2	---	---	3.5-6.0	0
	2-4	---	---	3.5-6.0	0
	4-6	---	6.0-12	3.5-6.0	0
	6-7	---	5.0-16	3.5-6.0	0
	7-16	1.0-5.0	---	3.5-6.0	0
	16-31	1.0-5.0	---	5.1-6.5	0
	31-41	---	---	---	---
BHC:					
Berkshire, very bouldery	0-2	---	---	3.5-6.0	0
	2-6	---	---	3.5-6.0	0
	6-30	---	---	3.5-6.0	0
	30-72	---	---	3.5-6.0	0
BHE:					
Berkshire, very bouldery	0-2	---	---	3.5-6.0	0
	2-6	---	---	3.5-6.0	0
	6-30	---	---	3.5-6.0	0
	30-72	---	---	3.5-6.0	0
BLC:					
Berkshire, very bouldery	0-2	---	---	3.5-6.0	0
	2-6	---	---	3.5-6.0	0
	6-30	---	---	3.5-6.0	0
	30-72	---	---	3.5-6.0	0
Tunbridge, very bouldery	0-2	---	---	3.5-6.0	0
	2-4	---	---	3.5-6.0	0
	4-6	---	6.0-12	3.5-6.0	0
	6-7	---	5.0-16	3.5-6.0	0
	7-16	1.0-5.0	---	3.5-6.0	0
	16-31	1.0-5.0	---	5.1-6.5	0
	31-41	---	---	---	---
BLE:					
Berkshire, very bouldery	0-2	---	---	3.5-6.0	0
	2-6	---	---	3.5-6.0	0
	6-30	---	---	3.5-6.0	0
	30-72	---	---	3.5-6.0	0
Tunbridge, very bouldery	0-2	---	---	3.5-6.0	0
	2-4	---	---	3.5-6.0	0
	4-6	---	6.0-12	3.5-6.0	0
	6-7	---	5.0-16	3.5-6.0	0
	7-16	1.0-5.0	---	3.5-6.0	0
	16-31	1.0-5.0	---	5.1-6.5	0
	31-41	---	---	---	---
BmB:					
Bernardston	0-10	---	---	4.5-6.0	0
	10-26	---	---	4.5-6.0	0
	26-72	---	---	4.5-6.0	0

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
BmC:					
Bernardston----------	0-10	---	---	4.5-6.0	0
	10-26	---	---	4.5-6.0	0
	26-72	---	---	4.5-6.0	0
BmD:					
Bernardston----------	0-10	---	---	4.5-6.0	0
	10-26	---	---	4.5-6.0	0
	26-72	---	---	4.5-6.0	0
BnB:					
Bernardston----------	0-10	---	---	4.5-6.0	0
	10-26	---	---	4.5-6.0	0
	26-72	---	---	4.5-6.0	0
Manlius--------------	0-5	---	---	3.6-5.5	0
	5-21	---	---	3.6-5.5	0
	21-24	---	---	4.5-6.5	0
	24-34	---	---	---	---
Nassau---------------	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
BnC:					
Bernardston----------	0-10	---	---	4.5-6.0	0
	10-26	---	---	4.5-6.0	0
	26-72	---	---	4.5-6.0	0
Manlius--------------	0-5	---	---	3.6-5.5	0
	5-21	---	---	3.6-5.5	0
	21-24	---	---	4.5-6.5	0
	24-34	---	---	---	---
Nassau---------------	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
BnD:					
Bernardston----------	0-10	---	---	4.5-6.0	0
	10-26	---	---	4.5-6.0	0
	26-72	---	---	4.5-6.0	0
Manlius--------------	0-5	---	---	3.6-5.5	0
	5-21	---	---	3.6-5.5	0
	21-24	---	---	4.5-6.5	0
	24-34	---	---	---	---
Nassau---------------	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
BOC:					
Bice, stony----------	0-5	---	10-20	4.5-6.0	0
	5-25	---	10-20	4.5-6.0	0
	25-30	---	5.0-15	4.5-6.0	0
	30-72	---	3.0-10	4.5-6.0	0

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
BOE:					
Bice, stony----------	0-5	---	10-20	4.5-6.0	0
	5-25	---	10-20	4.5-6.0	0
	25-30	---	5.0-15	4.5-6.0	0
	30-72	---	3.0-10	4.5-6.0	0
BPC:					
Bice, stony----------	0-5	---	10-20	4.5-6.0	0
	5-25	---	10-20	4.5-6.0	0
	25-30	---	5.0-15	4.5-6.0	0
	30-72	---	3.0-10	4.5-6.0	0
Woodstock, stony-----	0-1	---	---	5.1-6.5	0
	1-3	---	---	5.1-6.5	0
	3-16	---	---	5.1-6.5	0
	16-26	---	---	---	---
BPE:					
Bice, stony----------	0-5	---	10-20	4.5-6.0	0
	5-25	---	10-20	4.5-6.0	0
	25-30	---	5.0-15	4.5-6.0	0
	30-72	---	3.0-10	4.5-6.0	0
Woodstock, stony-----	0-1	---	---	5.1-6.5	0
	1-3	---	---	5.1-6.5	0
	3-16	---	---	5.1-6.5	0
	16-26	---	---	---	---
BtB:					
Broadalbin-----------	0-9	10-35	---	5.1-6.5	0
	9-30	5.0-25	---	5.1-6.5	0
	30-43	2.0-6.0	---	5.1-6.5	0
	43-74	2.0-14	---	5.6-7.8	0-1
	74-88	2.0-14	---	5.6-7.8	0-3
BtC:					
Broadalbin-----------	0-9	10-35	---	5.1-6.5	0
	9-30	5.0-25	---	5.1-6.5	0
	30-43	2.0-6.0	---	5.1-6.5	0
	43-74	2.0-14	---	5.6-7.8	0-1
	74-88	2.0-14	---	5.6-7.8	0-3
BtD:					
Broadalbin-----------	0-9	10-35	---	5.1-6.5	0
	9-30	5.0-25	---	5.1-6.5	0
	30-43	2.0-6.0	---	5.1-6.5	0
	43-74	2.0-14	---	5.6-7.8	0-1
	74-88	2.0-14	---	5.6-7.8	0-3
BvB:					
Broadalbin-----------	0-9	10-35	---	5.1-6.5	0
	9-30	5.0-25	---	5.1-6.5	0
	30-43	2.0-6.0	---	5.1-6.5	0
	43-74	2.0-14	---	5.6-7.8	0-1
	74-88	2.0-14	---	5.6-7.8	0-3
Manlius--------------	0-5	---	---	3.6-5.5	0
	5-21	---	---	3.6-5.5	0
	21-24	---	---	4.5-6.5	0
	24-34	---	---	---	---

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
BvB:					
Nassau---------------	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
BvC:					
Broadalbin-----------	0-9	10-35	---	5.1-6.5	0
	9-30	5.0-25	---	5.1-6.5	0
	30-43	2.0-6.0	---	5.1-6.5	0
	43-74	2.0-14	---	5.6-7.8	0-1
	74-88	2.0-14	---	5.6-7.8	0-3
Manlius--------------	0-5	---	---	3.6-5.5	0
	5-21	---	---	3.6-5.5	0
	21-24	---	---	4.5-6.5	0
	24-34	---	---	---	---
Nassau---------------	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
BvD:					
Broadalbin-----------	0-9	10-35	---	5.1-6.5	0
	9-30	5.0-25	---	5.1-6.5	0
	30-43	2.0-6.0	---	5.1-6.5	0
	43-74	2.0-14	---	5.6-7.8	0-1
	74-88	2.0-14	---	5.6-7.8	0-3
Manlius--------------	0-5	---	---	3.6-5.5	0
	5-21	---	---	3.6-5.5	0
	21-24	---	---	4.5-6.5	0
	24-34	---	---	---	---
Nassau---------------	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
BxB:					
Burdett--------------	0-7	15-25	---	5.1-7.3	0
	7-11	6.0-14	---	5.1-7.3	0
	11-33	15-25	---	5.1-7.3	0-1
	33-72	8.0-14	---	6.1-8.4	1-10
CcB:					
Charlton-------------	0-14	---	---	4.5-6.0	0
	14-36	---	---	4.5-6.0	0
	36-72	---	---	4.5-6.0	0
CcC:					
Charlton-------------	0-14	---	---	4.5-6.0	0
	14-36	---	---	4.5-6.0	0
	36-72	---	---	4.5-6.0	0
CcD:					
Charlton-------------	0-14	---	---	4.5-6.0	0
	14-36	---	---	4.5-6.0	0
	36-72	---	---	4.5-6.0	0

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
CeB:					
Chatfield, undulating	0-1	---	---	4.5-6.0	0
	1-2	---	---	4.5-6.0	0
	2-8	---	10-35	4.5-6.0	0
	8-24	---	5.0-20	4.5-6.0	0
	24-34	---	---	---	---
Hollis, undulating---	0-1	---	---	4.5-6.0	0
	1-3	---	---	4.5-6.0	0
	3-19	---	---	4.5-6.0	0
	19-29	---	---	---	---
CeC:					
Chatfield, rolling---	0-1	---	---	4.5-6.0	0
	1-2	---	---	4.5-6.0	0
	2-8	---	10-35	4.5-6.0	0
	8-24	---	5.0-20	4.5-6.0	0
	24-34	---	---	---	---
Hollis, rolling------	0-1	---	---	4.5-6.0	0
	1-3	---	---	4.5-6.0	0
	3-19	---	---	4.5-6.0	0
	19-29	---	---	---	---
CfD:					
Chatfield, hilly-----	0-1	---	---	4.5-6.0	0
	1-2	---	---	4.5-6.0	0
	2-8	---	10-35	4.5-6.0	0
	8-24	---	5.0-20	4.5-6.0	0
	24-34	---	---	---	---
Hollis, hilly--------	0-1	---	---	4.5-6.0	0
	1-3	---	---	4.5-6.0	0
	3-19	---	---	4.5-6.0	0
	19-29	---	---	---	---
Cg:					
Cheektowaga----------	0-12	20-40	---	5.6-7.3	0
	12-21	3.0-15	---	5.6-8.4	0
	21-38	18-30	---	6.6-8.4	0-10
	38-72	18-30	---	6.6-8.4	0-10
ChB:					
Chenango, loamy substratum----------	0-6	---	12-28	4.5-6.0	0
	6-30	---	3.0-15	4.5-6.0	0
	30-72	3.0-12	---	5.1-7.3	0
ChC:					
Chenango, loamy subtratum-----------	0-6	---	12-28	4.5-6.0	0
	6-30	---	3.0-15	4.5-6.0	0
	30-72	3.0-12	---	5.1-7.3	0
ClA:					
Claverack------------	0-8	9.0-15	---	5.1-7.3	0
	8-27	3.0-10	---	5.1-7.3	0
	27-31	10-20	---	6.6-8.4	0
	31-72	18-35	---	6.6-8.4	0-10

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
ClB:					
Claverack	0-8	9.0-15	---	5.1-7.3	0
	8-27	3.0-10	---	5.1-7.3	0
	27-31	10-20	---	6.6-8.4	0
	31-72	18-35	---	6.6-8.4	0-10
COC:					
Colton	0-1	---	---	3.5-6.0	0
	1-3	---	10-25	3.5-6.0	0
	3-41	---	5.0-30	3.5-6.0	0
	41-72	1.0-5.0	---	4.5-6.5	0
COE:					
Colton	0-1	---	---	3.5-6.0	0
	1-3	---	10-25	3.5-6.0	0
	3-41	---	5.0-30	3.5-6.0	0
	41-72	1.0-5.0	---	4.5-6.5	0
Cs:					
Cosad	0-8	5.0-25	---	5.1-6.5	0
	8-20	2.0-10	---	5.1-6.5	0
	20-27	20-45	---	5.6-7.3	0
	27-72	---	---	6.6-8.4	0-10
DeA:					
Deerfield	0-10	---	---	4.5-6.5	0
	10-26	---	---	4.5-6.5	0
	26-72	---	---	4.5-6.5	0
DeB:					
Deerfield, undulating	0-10	---	---	4.5-6.5	0
	10-26	---	---	4.5-6.5	0
	26-72	---	---	4.5-6.5	0
ElB:					
Elmridge	0-8	---	---	4.5-7.3	0
	8-18	---	---	5.1-7.3	0
	18-39	---	---	5.6-7.8	0
	39-72	---	---	5.6-7.8	0-5
FaB:					
Farmington, rocky	0-9	10-35	---	5.1-7.3	0
	9-15	5.0-20	---	5.6-7.8	0-5
	15-25	---	---	---	---
FcC:					
Farmington, very rocky	0-9	10-35	---	5.1-7.3	0
	9-15	5.0-20	---	5.6-7.8	0-5
	15-25	---	---	---	---
Fl:					
Fluvaquents, frequently flooded	0-10	---	---	5.1-7.8	0
	10-72	---	---	5.1-7.8	0-2
FU:					
Fluvaquents, flooded	0-10	---	---	5.1-7.8	0
	10-72	---	---	5.1-7.8	0-2
Udipsamments	0-6	---	---	3.5-5.5	0
	6-72	---	---	3.5-5.5	0

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
GaB:					
Galway---------------	0-6	15-30	---	5.6-7.3	0
	6-28	6.0-15	---	5.6-7.8	0-2
	28-30	6.0-15	---	5.6-7.8	0-5
	30-40	---	---	---	---
GaC:					
Galway---------------	0-6	15-30	---	5.6-7.3	0
	6-28	6.0-15	---	5.6-7.8	0-2
	28-30	6.0-15	---	5.6-7.8	0-5
	30-40	---	---	---	---
HcA:					
Hinckley-------------	0-6	---	---	3.5-6.0	0
	6-20	---	---	3.5-6.0	0
	20-72	---	---	3.5-6.0	0
HcB:					
Hinckley, undulating-	0-6	---	---	3.5-6.0	0
	6-20	---	---	3.5-6.0	0
	20-72	---	---	3.5-6.0	0
HcC:					
Hinckley, rolling----	0-6	---	---	3.5-6.0	0
	6-20	---	---	3.5-6.0	0
	20-72	---	---	3.5-6.0	0
HcD:					
Hinckley, hilly------	0-6	---	---	3.5-6.0	0
	6-20	---	---	3.5-6.0	0
	20-72	---	---	3.5-6.0	0
HoA:					
Hoosic---------------	0-9	---	9.0-20	4.5-5.5	0
	9-18	---	3.0-10	4.5-5.5	0
	18-24	---	2.0-7.0	4.5-5.5	0
	24-72	---	2.0-7.0	4.5-6.0	0
HoB:					
Hoosic, undulating---	0-9	---	9.0-20	4.5-5.5	0
	9-18	---	3.0-10	4.5-5.5	0
	18-24	---	2.0-7.0	4.5-5.5	0
	24-72	---	2.0-7.0	4.5-6.0	0
HoC:					
Hoosic, rolling------	0-9	---	9.0-20	4.5-5.5	0
	9-18	---	3.0-10	4.5-5.5	0
	18-24	---	2.0-7.0	4.5-5.5	0
	24-72	---	2.0-7.0	4.5-6.0	0
HuB:					
Hudson---------------	0-8	15-30	---	5.1-7.3	0
	8-13	18-32	---	5.1-7.3	0
	13-32	18-32	---	5.6-7.8	0-3
	32-72	15-30	---	6.6-8.4	0-10
HuC:					
Hudson---------------	0-8	15-30	---	5.1-7.3	0
	8-13	18-32	---	5.1-7.3	0
	13-32	18-32	---	5.6-7.8	0-3
	32-72	15-30	---	6.6-8.4	0-10

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
HuD:					
Hudson, hilly--------	0-8	15-30	---	5.1-7.3	0
	8-13	18-32	---	5.1-7.3	0
	13-32	18-32	---	5.6-7.8	0-3
	32-72	15-30	---	6.6-8.4	0-10
HuE:					
Hudson---------------	0-8	15-30	---	5.1-7.3	0
	8-13	18-32	---	5.1-7.3	0
	13-32	18-32	---	5.6-7.8	0-3
	32-72	15-30	---	6.6-8.4	0-10
In:					
Ilion----------------	0-9	6.0-30	---	5.6-7.3	0
	9-18	6.0-30	---	5.6-7.3	0
	18-32	15-25	---	5.6-7.8	0-3
	32-40	8.0-20	---	7.4-8.4	0-5
	40-72	8.0-20	---	7.4-8.4	2-10
Lm:					
Limerick-------------	0-5	---	---	5.1-7.3	0
	5-44	---	---	5.6-7.3	0
	44-72	---	---	5.6-7.3	0
Saco-----------------	0-13	---	---	5.1-7.3	0
	13-23	---	---	5.1-7.3	0
	23-72	---	---	5.6-7.3	0
LY:					
Lyme, very stony-----	0-8	---	---	4.5-5.5	0
	8-23	---	---	4.5-5.5	0
	23-35	---	---	4.5-5.5	0
	35-72	---	---	4.5-5.5	0
Ma:					
Madalin--------------	0-9	---	---	5.1-7.8	0
	9-36	---	---	5.6-7.8	0-3
	36-72	---	---	6.6-8.4	1-10
MnB:					
Manlius, undulating--	0-5	---	---	3.6-5.5	0
	5-21	---	---	3.6-5.5	0
	21-24	---	---	4.5-6.5	0
	24-34	---	---	---	---
Nassau---------------	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
MnC:					
Manlius, rolling-----	0-5	---	---	3.6-5.5	0
	5-21	---	---	3.6-5.5	0
	21-24	---	---	4.5-6.5	0
	24-34	---	---	---	---
Nassau---------------	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
MnD:					
Manlius, hilly	0-5	---	---	3.6-5.5	0
	5-21	---	---	3.6-5.5	0
	21-24	---	---	4.5-6.5	0
	24-34	---	---	---	---
Nassau	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
Ms:					
Massena	0-8	15-25	---	5.6-7.3	0
	8-26	3.0-15	---	5.6-7.3	0
	26-30	3.0-15	---	6.6-8.4	0-5
	30-58	3.0-15	---	6.6-8.4	0-10
	58-72	3.0-15	---	6.6-8.4	1-10
MvA:					
Mosherville	0-9	15-30	---	5.1-6.5	0
	9-16	4.0-17	---	5.1-6.5	0
	16-47	3.0-10	---	5.1-7.3	0
	47-72	1.0-8.0	---	5.6-7.8	0-2
MvB:					
Mosherville	0-9	15-30	---	5.1-6.5	0
	9-16	4.0-17	---	5.1-6.5	0
	16-47	3.0-10	---	5.1-7.3	0
	47-72	1.0-8.0	---	5.6-7.8	0-2
MxB:					
Mosherville	0-9	15-30	---	5.1-6.5	0
	9-16	4.0-17	---	5.1-6.5	0
	16-47	3.0-10	---	5.1-7.3	0
	47-72	1.0-8.0	---	5.6-7.8	0-2
Hornell, undulating	0-6	---	10-35	3.5-5.5	0
	6-17	---	20-32	4.5-5.5	0
	17-24	---	---	4.5-5.5	0
	24-34	---	---	---	---
NaC:					
Nassau, rolling	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
Rock Outcrop	0-10	---	---	---	---
NaD:					
Nassau, hilly	0-3	---	15-25	4.5-5.5	0
	3-18	---	3.0-13	4.5-5.5	0
	18-28	---	---	---	---
Rock Outcrop	0-10	---	---	---	---
Ne:					
Newstead	0-5	---	---	5.6-7.8	0
	5-11	---	---	6.1-8.4	0-2
	11-21	---	---	6.1-8.4	0-3
	21-23	---	---	6.6-8.4	0-5
	23-33	---	---	---	---

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
NuB:					
Nunda	0-8	15-25	---	5.1-7.3	0
	8-13	8.0-14	---	5.1-7.3	0
	13-17	10-20	---	5.6-7.3	0
	17-32	10-20	---	5.6-7.3	0-2
	32-72	4.0-11	---	6.1-8.4	0-5
NuC:					
Nunda	0-8	15-25	---	5.1-7.3	0
	8-13	8.0-14	---	5.1-7.3	0
	13-17	10-20	---	5.6-7.3	0
	17-32	10-20	---	5.6-7.3	0-2
	32-72	4.0-11	---	6.1-8.4	0-5
OaA:					
Oakville	0-7	2.0-10	---	4.5-7.3	0
	7-37	1.0-2.0	---	4.5-7.3	0
	37-90	1.0-2.0	---	5.6-7.3	0
OaB:					
Oakville, undulating	0-7	2.0-10	---	4.5-7.3	0
	7-37	1.0-2.0	---	4.5-7.3	0
	37-90	1.0-2.0	---	5.6-7.3	0
OaC:					
Oakville, rolling	0-7	2.0-10	---	4.5-7.3	0
	7-37	1.0-2.0	---	4.5-7.3	0
	37-90	1.0-2.0	---	5.6-7.3	0
OaD:					
Oakville, hilly	0-7	2.0-10	---	4.5-7.3	0
	7-37	1.0-2.0	---	4.5-7.3	0
	37-90	1.0-2.0	---	5.6-7.3	0
OeE:					
Oakville	0-7	2.0-10	---	4.5-7.3	0
	7-37	1.0-2.0	---	4.5-7.3	0
	37-90	1.0-2.0	---	5.6-7.3	0
Windsor	0-2	---	---	4.5-6.0	0
	2-11	---	---	4.5-6.0	0
	11-25	---	---	4.5-6.0	0
	25-72	---	---	4.5-6.5	0
Pm:					
Palms	0-28	150-200	---	5.1-7.8	0-2
	28-42	2.0-14	---	6.1-8.4	0-5
	42-72	2.0-14	---	6.1-8.4	0-10
Pp:					
Palms, ponded	0-28	150-200	---	5.1-7.8	0-2
	28-42	2.0-14	---	6.1-8.4	0-5
	42-72	2.0-14	---	6.1-8.4	0-10
PtB:					
Paxton	0-7	---	---	4.5-6.0	0
	7-31	---	---	4.5-6.0	0
	31-72	---	---	4.5-6.0	0
PtC:					
Paxton	0-7	---	---	4.5-6.0	0
	7-31	---	---	4.5-6.0	0
	31-72	---	---	4.5-6.0	0

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
Pu:					
Pits, Quarry	0-72	---	---	---	---
Pv:					
Pits, Sand And Gravel	0-72	---	---	3.5-7.8	0
PwA:					
Pittstown	0-11	---	---	4.5-6.0	0
	11-23	---	---	4.5-6.0	0
	23-72	---	---	4.5-6.5	0
PwB:					
Pittstown	0-11	---	---	4.5-6.0	0
	11-23	---	---	4.5-6.0	0
	23-72	---	---	4.5-6.5	0
Ra:					
Raynham	0-12	10-25	---	5.1-7.3	0
	12-34	5.0-20	---	5.1-7.3	0
	34-72	5.0-25	---	5.6-7.8	0-3
RhA:					
Rhinebeck	0-11	15-32	---	5.1-7.3	0
	11-37	20-35	---	5.1-7.8	0-2
	37-72	15-30	---	6.1-8.4	0-10
RhB:					
Rhinebeck	0-11	15-32	---	5.1-7.3	0
	11-37	20-35	---	5.1-7.8	0-2
	37-72	15-30	---	6.1-8.4	0-10
Sa:					
Scarboro	0-3	---	---	4.5-6.0	0
	3-10	---	---	4.5-6.0	0
	10-29	---	---	4.5-6.0	0
	29-72	---	---	5.6-7.3	0
SCB:					
Schroon, stony	0-2	---	---	3.5-6.0	0
	2-6	---	---	3.5-6.0	0
	6-22	---	---	4.5-6.0	0
	22-72	---	---	5.1-6.5	0
SeA:					
Scio	0-4	---	12-17	3.5-5.5	0
	4-23	---	7.0-11	4.5-5.5	0
	23-72	10-13	---	5.1-7.8	0-1
SeB:					
Scio	0-4	---	12-17	3.5-5.5	0
	4-23	---	7.0-11	4.5-5.5	0
	23-72	10-13	---	5.1-7.8	0-1
Sh:					
Shaker	0-9	---	---	5.1-7.3	0
	9-31	---	---	5.1-7.3	0
	31-72	---	---	5.6-7.8	0-3

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
SKB:					
Skerry, very stony	0-2	---	---	4.5-6.5	0
	2-4	---	---	4.5-6.5	0
	4-5	---	---	4.5-6.5	0
	5-26	---	---	4.5-6.5	0
	26-72	---	---	4.5-7.3	0
Sn:					
Sun	0-1	---	---	5.1-6.5	0
	1-13	15-30	---	5.1-6.5	0
	13-34	4.0-17	---	5.6-7.3	0
	34-72	2.0-9.0	---	6.6-8.4	0-5
StA:					
Sutton	0-9	---	---	4.5-6.0	0
	9-30	---	---	4.5-6.0	0
	30-72	---	---	4.5-6.0	0
StB:					
Sutton	0-9	---	---	4.5-6.0	0
	9-30	---	---	4.5-6.0	0
	30-72	---	---	4.5-6.0	0
Te:					
Teel	0-12	12-28	---	5.1-7.3	0
	12-38	3.0-15	---	5.1-7.8	0
	38-72	3.0-15	---	5.6-7.8	0-2
Tg:					
Tioga	0-9	12-28	---	5.1-7.3	0
	9-29	3.0-15	---	5.1-7.3	0
	29-72	3.0-15	---	5.6-7.8	0-2
TNC:					
Tunbridge, very bouldery	0-2	---	---	3.5-6.0	0
	2-4	---	---	3.5-6.0	0
	4-6	---	6.0-12	3.5-6.0	0
	6-7	---	5.0-16	3.5-6.0	0
	7-16	1.0-5.0	---	3.5-6.0	0
	16-31	1.0-5.0	---	5.1-6.5	0
	31-41	---	---	---	---
Lyman, very bouldery	0-1	---	---	3.5-6.0	0
	1-5	---	---	3.5-6.0	0
	5-13	---	---	3.5-6.0	0
	13-23	---	---	---	---
TNE:					
Tunbridge, very bouldery	0-2	---	---	3.5-6.0	0
	2-4	---	---	3.5-6.0	0
	4-6	---	6.0-12	3.5-6.0	0
	6-7	---	5.0-16	3.5-6.0	0
	7-16	1.0-5.0	---	3.5-6.0	0
	16-31	1.0-5.0	---	5.1-6.5	0
	31-41	---	---	---	---
Lyman, very bouldery	0-1	---	---	3.5-6.0	0
	1-5	---	---	3.5-6.0	0
	5-13	---	---	3.5-6.0	0
	13-23	---	---	---	---

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
TNF:					
Tunbridge, very bouldery------------	0-2	---	---	3.5-6.0	0
	2-4	---	---	3.5-6.0	0
	4-6	---	6.0-12	3.5-6.0	0
	6-7	---	5.0-16	3.5-6.0	0
	7-16	1.0-5.0	---	3.5-6.0	0
	16-31	1.0-5.0	---	5.1-6.5	0
	31-41	---	---	---	---
Lyman, very bouldery-	0-1	---	---	3.5-6.0	0
	1-5	---	---	3.5-6.0	0
	5-13	---	---	3.5-6.0	0
	13-23	---	---	---	---
Ud:					
Udipsamments, dredged	0-6	---	---	3.5-5.5	0
	6-72	---	---	3.5-5.5	0
Ue:					
Udorthents, smoothed-	0-5	---	---	4.5-6.5	0
	5-72	---	---	4.5-6.5	0
UnB:					
Unadilla-------------	0-2	---	---	4.5-6.0	0
	2-8	---	12-28	4.5-6.0	0
	8-42	---	3.0-15	4.5-6.0	0
	42-72	---	---	5.1-7.8	0-2
UnC:					
Unadilla-------------	0-2	---	---	4.5-6.0	0
	2-8	---	12-28	4.5-6.0	0
	8-42	---	3.0-15	4.5-6.0	0
	42-72	---	---	5.1-7.8	0-2
W:					
Water----------------	---	---	---	---	---
Wa:					
Wareham--------------	0-2	---	---	3.5-5.5	0
	2-8	---	10-15	3.5-5.5	0
	8-19	---	3.0-10	3.5-5.5	0
	19-72	---	1.0-6.0	3.5-5.5	0
WnA:					
Windsor--------------	0-2	---	---	4.5-6.0	0
	2-11	---	---	4.5-6.0	0
	11-25	---	---	4.5-6.0	0
	25-72	---	---	4.5-6.5	0
WnB:					
Windsor, undulating--	0-2	---	---	4.5-6.0	0
	2-11	---	---	4.5-6.0	0
	11-25	---	---	4.5-6.0	0
	25-72	---	---	4.5-6.5	0
WnC:					
Windsor, rolling-----	0-2	---	---	4.5-6.0	0
	2-11	---	---	4.5-6.0	0
	11-25	---	---	4.5-6.0	0
	25-72	---	---	4.5-6.5	0

Table 23.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbonate
	In	meq/100 g	meq/100 g	pH	Pct
WnD:					
Windsor, hilly	0-2	---	---	4.5-6.0	0
	2-11	---	---	4.5-6.0	0
	11-25	---	---	4.5-6.0	0
	25-72	---	---	4.5-6.5	0
WO:					
Wonsqueak, ponded	0-31	---	50-100	4.5-6.5	0
	31-72	---	50-120	5.1-7.3	0
WrB:					
Woodbridge	0-5	---	---	4.5-6.0	0
	5-26	---	---	4.5-6.0	0
	26-72	---	---	4.5-6.0	0

Table 24.—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	Thickness	Initial	Total		Uncoated steel	Concrete
		In	In	In	In			
ALA:								
Allagash	—	—	—	—	—	Moderate	Low	High
ALC:								
Allagash	—	—	—	—	—	Moderate	Low	High
ALE:								
Allagash	—	—	—	—	—	Moderate	Low	High
As:								
Allis	Bedrock (paralithic)	20-40	—	—	—	Moderate	High	High
BCC:								
Becket, very bouldery	Dense material	24-36	36-54	—	—	Moderate	Low	Moderate
BCE:								
Becket, very bouldery	Dense material	24-36	36-54	—	—	Moderate	Low	Moderate
BEC:								
Becket, very bouldery	Dense material	24-36	36-54	—	—	Moderate	Low	Moderate
Tunbridge, very bouldery	Bedrock (lithic)	20-40	—	—	—	Moderate	High	High
BEE:								
Becket, very bouldery	Dense material	24-36	36-54	—	—	Moderate	Low	Moderate
Tunbridge, very bouldery	Bedrock (lithic)	20-40	—	—	—	Moderate	High	High
BHC:								
Berkshire, very bouldery	—	—	—	—	—	Moderate	Low	High
BHE:								
Berkshire, very bouldery	—	—	—	—	—	Moderate	Low	High
BLC:								
Berkshire, very bouldery	—	—	—	—	—	Moderate	Low	High
Tunbridge, very bouldery	Bedrock (lithic)	20-40	—	—	—	Moderate	High	High
BLE:								
Berkshire, very bouldery	—	—	—	—	—	Moderate	Low	High
Tunbridge, very bouldery	Bedrock (lithic)	20-40	—	—	—	Moderate	High	High
BmB:								
Bernardston	Dense material	20-30	42-52	—	—	Moderate	Low	High
BmC:								
Bernardston	Dense material	20-30	42-52	—	—	Moderate	Low	High
BmD:								
Bernardston	Dense material	20-30	42-52	—	—	Moderate	Low	High

Table 24.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Initial	Total		Uncoated steel	Concrete
		In	In	In	In			
BnB:								
Bernardston	Dense material	20-30	42-52	—	—	Moderate	Low	High
Manlius	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Nassau	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
BnC:								
Bernardston	Dense material	20-30	42-52	—	—	Moderate	Low	High
Manlius	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Nassau	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
BnD:								
Bernardston	Dense material	20-30	42-52	—	—	Moderate	Low	High
Manlius	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Nassau	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
BOC:								
Bice, stony	—	—	—	—	—	Low	Low	High
BOE:								
Bice, stony	—	—	—	—	—	Low	Low	High
BPC:								
Bice, stony	—	—	—	—	—	Low	Low	High
Woodstock, stony	Bedrock (lithic)	10-20	—	—	—	Low	Low	Moderate
BPE:								
Bice, stony	—	—	—	—	—	Low	Low	High
Woodstock, stony	Bedrock (lithic)	10-20	—	—	—	Low	Low	Moderate
BtB:								
Broadalbin	Fragipan	18-36	6-42	—	—	Moderate	Moderate	Moderate
BtC:								
Broadalbin	Fragipan	18-36	6-42	—	—	Moderate	Moderate	Moderate
BtD:								
Broadalbin	Fragipan	18-36	6-42	—	—	Moderate	Moderate	Moderate
BvB:								
Broadalbin	Fragipan	18-36	6-42	—	—	Moderate	Moderate	Moderate
Manlius	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Nassau	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
BvC:								
Broadalbin	Fragipan	18-36	6-42	—	—	Moderate	Moderate	Moderate
Manlius	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Nassau	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High

Table 24.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Initial	Total		Uncoated steel	Concrete
		In	In	In	In			
BvD:								
Broadalbin	Fragipan	18-36	6-42	—	—	Moderate	Moderate	Moderate
Manlius	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Nassau	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
BxB:								
Burdett	—	—	—	—	—	High	High	Low
CcB:								
Charlton	—	—	—	—	—	Low	Low	High
CcC:								
Charlton	—	—	—	—	—	Low	Low	High
CcD:								
Charlton	—	—	—	—	—	Low	Low	High
CeB:								
Chatfield, undulating	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Hollis, undulating	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
CeC:								
Chatfield, rolling	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Hollis, rolling	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
CfD:								
Chatfield, hilly	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Hollis, hilly	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
Cg:								
Cheektowaga	Abrupt textural change	20-40	—	—	—	Moderate	High	Moderate
ChB:								
Chenango, loamy substratum	—	—	—	—	—	Moderate	Low	Moderate
ChC:								
Chenango, loamy subtratum	—	—	—	—	—	Moderate	Low	Moderate
ClA:								
Claverack	Abrupt textural change	20-40	—	—	—	Moderate	Low	Moderate
ClB:								
Claverack	Abrupt textural change	20-40	—	—	—	Moderate	Low	Moderate
COC:								
Colton	—	—	—	—	—	Low	Low	High
COE:								
Colton	—	—	—	—	—	Low	Low	High
Cs:								
Cosad	Abrupt textural change	18-40	—	—	—	Moderate	High	Moderate

Table 24.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Initial	Total		Uncoated steel	Concrete
		In	In	In	In			
DeA:								
Deerfield	—	—	—	—	—	Moderate	Low	High
DeB:								
Deerfield, undulating	—	—	—	—	—	Moderate	Low	High
ElB:								
Elmridge	Abrupt textural change	18-40	—	—	—	High	Moderate	Moderate
FaB:								
Farmington, rocky	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	Moderate
FcC:								
Farmington, very rocky	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	Moderate
Fl:								
Fluvaquents, frequently flooded	—	—	—	—	—	High	High	High
FU:								
Fluvaquents, flooded	—	—	—	—	—	High	High	High
Udipsamments	—	—	—	—	—	Low	Low	High
GaB:								
Galway	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Low
GaC:								
Galway	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Low
HcA:								
Hinckley	—	—	—	—	—	Low	Low	High
HcB:								
Hinckley, undulating	—	—	—	—	—	Low	Low	High
HcC:								
Hinckley, rolling	—	—	—	—	—	Low	Low	High
HcD:								
Hinckley, hilly	—	—	—	—	—	Low	Low	High
HoA:								
Hoosic	—	—	—	—	—	Low	Low	High
HoB:								
Hoosic, undulating	—	—	—	—	—	Low	Low	High
HoC:								
Hoosic, rolling	—	—	—	—	—	Low	Low	High
HuB:								
Hudson	Abrupt textural change	20-72	0-52	—	—	High	High	Low
HuC:								
Hudson	Abrupt textural change	20-72	0-52	—	—	High	High	Low
HuD:								
Hudson, hilly	Abrupt textural change	20-72	0-52	—	—	High	High	Low

Table 24.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Initial	Total		Uncoated steel	Concrete
		In	In	In	In			
HuE:								
Hudson	Abrupt textural change	20-72	0-52	—	—	High	High	Low
In:								
Ilion	—	—	—	—	—	High	High	Low
Lm:								
Limerick	—	—	—	—	—	High	High	Low
Saco	—	—	—	—	—	High	High	Low
LY:								
Lyme, very stony	—	—	—	—	—	High	Low	High
Ma:								
Madalin	—	—	—	—	—	High	High	Low
MnB:								
Manlius, undulating	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Nassau	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
MnC:								
Manlius, rolling	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Nassau	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
MnD:								
Manlius, hilly	Bedrock (lithic)	20-40	—	—	—	Moderate	Low	Moderate
Nassau	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
Ms:								
Massena	—	—	—	—	—	High	Moderate	Moderate
MvA:								
Mosherville	Fragipan	14-30	10-46	—	—	High	High	Moderate
MvB:								
Mosherville	Fragipan	14-30	10-46	—	—	High	High	Moderate
MxB:								
Mosherville	Fragipan	14-30	10-46	—	—	High	High	Moderate
Hornell, undulating	Bedrock (lithic)	20-40	—	—	—	High	High	High
NaC:								
Nassau, rolling	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
Rock Outcrop	Bedrock (lithic)	0-0	—	—	—	—	—	—
NaD:								
Nassau, hilly	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
Rock Outcrop	Bedrock (paralithic)	0-0	—	—	—	—	—	—
Ne:								
Newstead	Bedrock (lithic)	20-40	—	—	—	High	High	Low
NuB:								
Nunda	Abrupt textural change	30-72	0-42	—	—	High	Moderate	Low

Table 24.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Initial	Total		Uncoated steel	Concrete
		In	In	In	In			
NuC:								
Nunda	Abrupt textural change	30-72	0-42	—	—	High	Moderate	Low
OaA:								
Oakville	—	—	—	—	—	Low	Low	Moderate
OaB:								
Oakville, undulating	—	—	—	—	—	Low	Low	Moderate
OaC:								
Oakville, rolling	—	—	—	—	—	Low	Low	Moderate
OaD:								
Oakville, hilly	—	—	—	—	—	Low	Low	Moderate
OeE:								
Oakville	—	—	—	—	—	Low	Low	Moderate
Windsor	—	—	—	—	—	Low	Low	High
Pm:								
Palms	—	—	—	4-15	25-32	High	High	Moderate
Pp:								
Palms, ponded	—	—	—	4-15	25-32	High	High	Moderate
PtB:								
Paxton	Dense material	18-40	32-54	—	—	Moderate	Low	Moderate
PtC:								
Paxton	Dense material	18-40	32-54	—	—	Moderate	Low	Moderate
Pu:								
Pits, Quarry	Bedrock (lithic)	0-10	—	—	—	—	—	—
Pv:								
Pits, Sand And Gravel	—	—	—	—	—	Low	—	—
PwA:								
Pittstown	Dense material	15-30	42-52	—	—	Moderate	Moderate	High
PwB:								
Pittstown	Dense material	15-30	42-52	—	—	Moderate	Moderate	High
Ra:								
Raynham	—	—	—	—	—	High	High	Moderate
RhA:								
Rhinebeck	—	—	—	—	—	High	High	Low
RhB:								
Rhinebeck	—	—	—	—	—	High	High	Low
Sa:								
Scarboro	—	—	—	—	—	High	High	High
SCB:								
Schroon, stony	—	—	—	—	—	High	Low	High
SeA:								
Scio	—	—	—	—	—	High	Moderate	Moderate

Table 24.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Initial	Total		Uncoated steel	Concrete
		In	In	In	In			
SeB:								
Scio	—	—	—	—	—	High	Moderate	Moderate
Sh:								
Shaker	—	—	—	—	—	High	Moderate	Moderate
SKB:								
Skerry, very stony	Dense material	20-36	36-52	—	—	High	Low	Moderate
Sn:								
Sun	—	—	—	—	—	High	High	Moderate
StA:								
Sutton	—	—	—	—	—	High	Moderate	High
StB:								
Sutton	—	—	—	—	—	High	Moderate	High
Te:								
Teel	—	—	—	—	—	High	Moderate	Low
Tg:								
Tioga	—	—	—	—	—	Moderate	Low	Moderate
TNC:								
Tunbridge, very bouldery	Bedrock (lithic)	20-40	—	—	—	Moderate	High	High
Lyman, very bouldery	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
TNE:								
Tunbridge, very bouldery	Bedrock (lithic)	20-40	—	—	—	Moderate	High	High
Lyman, very bouldery	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
TNF:								
Tunbridge, very bouldery	Bedrock (lithic)	20-40	—	—	—	Moderate	High	High
Lyman, very bouldery	Bedrock (lithic)	10-20	—	—	—	Moderate	Low	High
Ud:								
Udipsamments, dredged	—	—	—	—	—	Low	Low	High
Ue:								
Udorthents, smoothed	—	—	—	—	—	Moderate	Moderate	Moderate
UnB:								
Unadilla	—	—	—	—	—	High	Low	Moderate
UnC:								
Unadilla	—	—	—	—	—	High	Low	Moderate
W:								
Water	—	—	—	—	—	—	—	—
Wa:								
Wareham	—	—	—	—	—	Moderate	Moderate	High
WnA:								
Windsor	—	—	—	—	—	Low	Low	High

Table 24.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Initial	Total		Uncoated steel	Concrete
		In	In	In	In			
WnB:								
Windsor, undulating	—	—	—	—	—	Low	Low	High
WnC:								
Windsor, rolling	—	—	—	—	—	Low	Low	High
WnD:								
Windsor, hilly	—	—	—	—	—	Low	Low	High
WO:								
Wonsqueak, ponded	—	—	—	6-18	50-55	High	High	High
WrB:								
Woodbridge	Dense material	18-40	32-54	—	—	High	Low	Moderate

Table 25.--Water Features

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. 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: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
ALA:									
Allagash	B								
		Jan-Dec	---	---	---	---	None	---	None
ALC:									
Allagash	B								
		Jan-Dec	---	---	---	---	None	---	None
ALE:									
Allagash	B								
		Jan-Dec	---	---	---	---	None	---	None
As:									
Allis	D								
		January	0.0-1.0	1.7-3.3	---	---	None	---	None
		February	0.0-1.0	1.7-3.3	---	---	None	---	None
		March	0.0-1.0	1.7-3.3	---	---	None	---	None
		April	0.0-1.0	1.7-3.3	---	---	None	---	None
		May	0.0-1.0	1.7-3.3	---	---	None	---	None
		June	0.0-1.0	1.7-3.3	---	---	None	---	None
		November	0.0-1.0	1.7-3.3	---	---	None	---	None
		December	0.0-1.0	1.7-3.3	---	---	None	---	None
BCC:									
Becket, very bouldery	C								
		March	2.0-3.0	2.0-3.0	---	---	None	---	None
		April	2.0-3.0	2.0-3.0	---	---	None	---	None
BCE:									
Becket, very bouldery	C								
		March	2.0-3.0	2.0-3.0	---	---	None	---	None
		April	2.0-3.0	2.0-3.0	---	---	None	---	None
BEC:									
Becket, very bouldery	C								
		March	2.0-3.0	2.0-3.0	---	---	None	---	None
		April	2.0-3.0	2.0-3.0	---	---	None	---	None
Tunbridge, very bouldery	C								
		Jan-Dec	---	---	---	---	None	---	None
BEE:									
Becket, very bouldery	C								
		March	2.0-3.0	2.0-3.0	---	---	None	---	None
		April	2.0-3.0	2.0-3.0	---	---	None	---	None
Tunbridge, very bouldery	C								
		Jan-Dec	---	---	---	---	None	---	None
BHC:									
Berkshire, very bouldery	B								
		Jan-Dec	---	---	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
BHE:									
Berkshire, very bouldery	B								
		Jan-Dec	---	---	---	---	None	---	None
BLC:									
Berkshire, very bouldery	B								
		Jan-Dec	---	---	---	---	None	---	None
Tunbridge, very bouldery	C								
		Jan-Dec	---	---	---	---	None	---	None
BLE:									
Berkshire, very bouldery	B								
		Jan-Dec	---	---	---	---	None	---	None
Tunbridge, very bouldery	C								
		Jan-Dec	---	---	---	---	None	---	None
BmB:									
Bernardston	C								
		February	1.5-2.0	1.7-2.5	---	---	None	---	None
		March	1.5-2.0	1.7-2.5	---	---	None	---	None
		April	1.5-2.0	1.7-2.5	---	---	None	---	None
BmC:									
Bernardston	C								
		February	1.5-2.0	1.7-2.5	---	---	None	---	None
		March	1.5-2.0	1.7-2.5	---	---	None	---	None
		April	1.5-2.0	1.7-2.5	---	---	None	---	None
BmD:									
Bernardston	C								
		February	1.5-2.0	1.7-2.5	---	---	None	---	None
		March	1.5-2.0	1.7-2.5	---	---	None	---	None
		April	1.5-2.0	1.7-2.5	---	---	None	---	None
BnB:									
Bernardston	C								
		February	1.5-2.0	1.7-2.5	---	---	None	---	None
		March	1.5-2.0	1.7-2.5	---	---	None	---	None
		April	1.5-2.0	1.7-2.5	---	---	None	---	None
Manlius	C								
		Jan-Dec	---	---	---	---	None	---	None
Nassau	C								
		Jan-Dec	---	---	---	---	None	---	None
BnC:									
Bernardston	C								
		February	1.5-2.0	1.7-2.5	---	---	None	---	None
		March	1.5-2.0	1.7-2.5	---	---	None	---	None
		April	1.5-2.0	1.7-2.5	---	---	None	---	None
Manlius	C								
		Jan-Dec	---	---	---	---	None	---	None
Nassau	C								
		Jan-Dec	---	---	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
BnD:									
Bernardston	C								
		February	1.5-2.0	1.7-2.5	---	---	None	---	None
		March	1.5-2.0	1.7-2.5	---	---	None	---	None
		April	1.5-2.0	1.7-2.5	---	---	None	---	None
Manlius	C								
		Jan-Dec	---	---	---	---	None	---	None
Nassau	C								
		Jan-Dec	---	---	---	---	None	---	None
BOC:									
Bice, stony	B								
		Jan-Dec	---	---	---	---	None	---	None
BOE:									
Bice, stony	B								
		Jan-Dec	---	---	---	---	None	---	None
BPC:									
Bice, stony	B								
		Jan-Dec	---	---	---	---	None	---	None
Woodstock, stony	D								
		Jan-Dec	---	---	---	---	None	---	None
BPE:									
Bice, stony	B								
		Jan-Dec	---	---	---	---	None	---	None
Woodstock, stony	D								
		Jan-Dec	---	---	---	---	None	---	None
BtB:									
Broadalbin	C								
		March	1.5-3.0	1.5-3.0	---	---	None	---	None
		April	1.5-3.0	1.5-3.0	---	---	None	---	None
		May	1.5-3.0	1.5-3.0	---	---	None	---	None
BtC:									
Broadalbin	C								
		March	1.5-3.0	1.5-3.0	---	---	None	---	None
		April	1.5-3.0	1.5-3.0	---	---	None	---	None
		May	1.5-3.0	1.5-3.0	---	---	None	---	None
BtD:									
Broadalbin	C								
		March	1.5-3.0	1.5-3.0	---	---	None	---	None
		April	1.5-3.0	1.5-3.0	---	---	None	---	None
		May	1.5-3.0	1.5-3.0	---	---	None	---	None
BvB:									
Broadalbin	C								
		March	1.5-3.0	1.5-3.0	---	---	None	---	None
		April	1.5-3.0	1.5-3.0	---	---	None	---	None
		May	1.5-3.0	1.5-3.0	---	---	None	---	None
Manlius	C								
		Jan-Dec	---	---	---	---	None	---	None
Nassau	C								
		Jan-Dec	---	---	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
BvC:									
Broadalbin----------------	C								
		March	1.5-3.0	1.5-3.0	---	---	None	---	None
		April	1.5-3.0	1.5-3.0	---	---	None	---	None
		May	1.5-3.0	1.5-3.0	---	---	None	---	None
Manlius-------------------	C								
		Jan-Dec	---	---	---	---	None	---	None
Nassau--------------------	C								
		Jan-Dec	---	---	---	---	None	---	None
BvD:									
Broadalbin----------------	C								
		March	1.5-3.0	1.5-3.0	---	---	None	---	None
		April	1.5-3.0	1.5-3.0	---	---	None	---	None
		May	1.5-3.0	1.5-3.0	---	---	None	---	None
Manlius-------------------	C								
		Jan-Dec	---	---	---	---	None	---	None
Nassau--------------------	C								
		Jan-Dec	---	---	---	---	None	---	None
BxB:									
Burdett-------------------	C								
		January	0.5-1.5	1.0-2.1	---	---	None	---	None
		February	0.5-1.5	1.0-2.1	---	---	None	---	None
		March	0.5-1.5	1.0-2.1	---	---	None	---	None
		April	0.5-1.5	1.0-2.1	---	---	None	---	None
		May	0.5-1.5	1.0-2.1	---	---	None	---	None
		December	0.5-1.5	1.0-2.1	---	---	None	---	None
CcB:									
Charlton------------------	B								
		Jan-Dec	---	---	---	---	None	---	None
CcC:									
Charlton------------------	B								
		Jan-Dec	---	---	---	---	None	---	None
CcD:									
Charlton------------------	B								
		Jan-Dec	---	---	---	---	None	---	None
CeB:									
Chatfield, undulating-----	B								
		Jan-Dec	---	---	---	---	None	---	None
Hollis, undulating--------	C/D								
		Jan-Dec	---	---	---	---	None	---	None
CeC:									
Chatfield, rolling--------	B								
		Jan-Dec	---	---	---	---	None	---	None
Hollis, rolling-----------	C/D								
		Jan-Dec	---	---	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table Upper limit	Water table Lower limit	Ponding Surface water depth	Ponding Duration	Ponding Frequency	Flooding Duration	Flooding Frequency
			Ft	Ft	Ft				
CfD:									
Chatfield, hilly----------	B								
		Jan-Dec	---	---	---	---	None	---	None
Hollis, hilly-------------	C/D								
		Jan-Dec	---	---	---	---	None	---	None
Cg:									
Cheektowaga---------------	D								
		January	0.0-0.5	1.7-3.3	0.0-0.5	Long	Frequent	---	None
		February	0.0-0.5	1.7-3.3	0.0-0.5	Long	Frequent	---	None
		March	0.0-0.5	1.7-3.3	0.0-0.5	Long	Frequent	---	None
		April	0.0-0.5	1.7-3.3	0.0-0.5	Long	Frequent	---	None
		May	0.0-0.5	1.7-3.3	0.0-0.5	Long	Frequent	---	None
		June	0.0-0.5	1.7-3.3	0.0-0.5	Brief	Occasional	---	None
		November	0.0-0.5	1.7-3.3	0.0-0.5	Brief	Occasional	---	None
		December	0.0-0.5	1.7-3.3	0.0-0.5	Long	Frequent	---	None
ChB:									
Chenango, loamy substratum	A								
		Jan-Dec	---	---	---	---	None	---	None
ChC:									
Chenango, loamy subtratum-	A								
		Jan-Dec	---	---	---	---	None	---	None
ClA:									
Claverack-----------------	C								
		January	1.5-2.0	1.7-3.3	---	---	None	---	None
		February	1.5-2.0	1.7-3.3	---	---	None	---	None
		March	1.5-2.0	1.7-3.3	---	---	None	---	None
		April	1.5-2.0	1.7-3.3	---	---	None	---	None
		May	1.5-2.0	1.7-3.3	---	---	None	---	None
		November	1.5-2.0	1.7-3.3	---	---	None	---	None
		December	1.5-2.0	1.7-3.3	---	---	None	---	None
ClB:									
Claverack-----------------	C								
		January	1.5-2.0	1.7-3.3	---	---	None	---	None
		February	1.5-2.0	1.7-3.3	---	---	None	---	None
		March	1.5-2.0	1.7-3.3	---	---	None	---	None
		April	1.5-2.0	1.7-3.3	---	---	None	---	None
		May	1.5-2.0	1.7-3.3	---	---	None	---	None
		November	1.5-2.0	1.7-3.3	---	---	None	---	None
		December	1.5-2.0	1.7-3.3	---	---	None	---	None
COC:									
Colton--------------------	A								
		Jan-Dec	---	---	---	---	None	---	None
COE:									
Colton--------------------	A								
		Jan-Dec	---	---	---	---	None	---	None
Cs:									
Cosad---------------------	C								
		January	0.5-1.5	1.5-3.4	---	---	None	---	None
		February	0.5-1.5	1.5-3.4	---	---	None	---	None
		March	0.5-1.5	1.5-3.4	---	---	None	---	None
		April	0.5-1.5	1.5-3.4	---	---	None	---	None
		May	0.5-1.5	1.5-3.4	---	---	None	---	None
		November	0.5-1.5	1.5-3.4	---	---	None	---	None
		December	0.5-1.5	1.5-3.4	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
DeA:									
Deerfield-----------------	B								
		January	1.5-3.0	>6.0	---	---	None	---	None
		February	1.5-3.0	>6.0	---	---	None	---	None
		March	1.5-3.0	>6.0	---	---	None	---	None
		April	1.5-3.0	>6.0	---	---	None	---	None
		December	1.5-3.0	>6.0	---	---	None	---	None
DeB:									
Deerfield, undulating-----	B								
		January	1.5-3.0	>6.0	---	---	None	---	None
		February	1.5-3.0	>6.0	---	---	None	---	None
		March	1.5-3.0	>6.0	---	---	None	---	None
		April	1.5-3.0	>6.0	---	---	None	---	None
		December	1.5-3.0	>6.0	---	---	None	---	None
ElB:									
Elmridge------------------	C								
		January	1.5-2.5	1.5-3.3	---	---	None	---	None
		February	1.5-2.5	1.5-3.3	---	---	None	---	None
		March	1.5-2.5	1.5-3.3	---	---	None	---	None
		April	1.5-2.5	1.5-3.3	---	---	None	---	None
		May	1.5-2.5	1.5-3.3	---	---	None	---	None
		November	1.5-2.5	1.5-3.3	---	---	None	---	None
		December	1.5-2.5	1.5-3.3	---	---	None	---	None
FaB:									
Farmington, rocky---------	C								
		Jan-Dec	---	---	---	---	None	---	None
FcC:									
Farmington, very rocky----	C								
		Jan-Dec	---	---	---	---	None	---	None
Fl:									
Fluvaquents, frequently flooded------------------	D								
		January	0.0	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		February	0.0	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		March	0.0	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		April	0.0	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		May	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	Long	Frequent
		June	0.0-1.0	>6.0	0.0-0.5	Very brief	Occasional	Long	Frequent
		July	---	---	---	---	None	Brief	Frequent
		October	0.0-1.0	>6.0	0.0-0.5	Very brief	Occasional	---	None
		November	0.0-1.0	>6.0	0.0-0.5	Brief	Frequent	---	None
		December	0.0-1.0	>6.0	0.0-0.5	Brief	Frequent	---	None
FU:									
Fluvaquents, flooded------	D								
		January	0.0	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		February	0.0	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		March	0.0	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		April	0.0	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		May	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	Long	Frequent
		June	0.0-1.0	>6.0	0.0-0.5	Very brief	Occasional	Long	Frequent
		July	---	---	---	---	None	Brief	Frequent
		October	0.0-1.0	>6.0	0.0-0.5	Very brief	Occasional	---	None
		November	0.0-1.0	>6.0	0.0-0.5	Brief	Frequent	---	None
		December	0.0-1.0	>6.0	0.0-0.5	Brief	Frequent	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
FU:									
Udipsamments	A								
		March	---	---	---	---	None	Very brief	Rare
		April	---	---	---	---	None	Very brief	Rare
		May	---	---	---	---	None	Very brief	Rare
GaB:									
Galway	B								
		March	1.5-3.0	1.7-3.3	---	---	None	---	None
		April	1.5-3.0	1.7-3.3	---	---	None	---	None
GaC:									
Galway	B								
		March	1.5-3.0	1.7-3.3	---	---	None	---	None
		April	1.5-3.0	1.7-3.3	---	---	None	---	None
HcA:									
Hinckley	A								
		Jan-Dec	---	---	---	---	None	---	None
HcB:									
Hinckley, undulating	A								
		Jan-Dec	---	---	---	---	None	---	None
HcC:									
Hinckley, rolling	A								
		Jan-Dec	---	---	---	---	None	---	None
HcD:									
Hinckley, hilly	A								
		Jan-Dec	---	---	---	---	None	---	None
HoA:									
Hoosic	A								
		Jan-Dec	---	---	---	---	None	---	None
HoB:									
Hoosic, undulating	A								
		Jan-Dec	---	---	---	---	None	---	None
HoC:									
Hoosic, rolling	A								
		Jan-Dec	---	---	---	---	None	---	None
HuB:									
Hudson	C								
		January	1.5-2.0	1.7-6.0	---	---	None	---	None
		February	1.5-2.0	1.7-6.0	---	---	None	---	None
		March	1.5-2.0	1.7-6.0	---	---	None	---	None
		April	1.5-2.0	1.7-6.0	---	---	None	---	None
		November	1.5-2.0	1.7-6.0	---	---	None	---	None
		December	1.5-2.0	1.7-6.0	---	---	None	---	None
HuC:									
Hudson	C								
		January	1.5-2.0	1.7-6.0	---	---	None	---	None
		February	1.5-2.0	1.7-6.0	---	---	None	---	None
		March	1.5-2.0	1.7-6.0	---	---	None	---	None
		April	1.5-2.0	1.7-6.0	---	---	None	---	None
		November	1.5-2.0	1.7-6.0	---	---	None	---	None
		December	1.5-2.0	1.7-6.0	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
HuD:									
Hudson, hilly	C								
		January	1.5-2.0	1.7-6.0	---	---	None	---	None
		February	1.5-2.0	1.7-6.0	---	---	None	---	None
		March	1.5-2.0	1.7-6.0	---	---	None	---	None
		April	1.5-2.0	1.7-6.0	---	---	None	---	None
		November	1.5-2.0	1.7-6.0	---	---	None	---	None
		December	1.5-2.0	1.7-6.0	---	---	None	---	None
HuE:									
Hudson	C								
		January	1.5-2.0	1.7-6.0	---	---	None	---	None
		February	1.5-2.0	1.7-6.0	---	---	None	---	None
		March	1.5-2.0	1.7-6.0	---	---	None	---	None
		April	1.5-2.0	1.7-6.0	---	---	None	---	None
		November	1.5-2.0	1.7-6.0	---	---	None	---	None
		December	1.5-2.0	1.7-6.0	---	---	None	---	None
In:									
Ilion	D								
		January	0.0	>6.0	---	---	None	---	None
		February	0.0	>6.0	---	---	None	---	None
		March	0.0	>6.0	---	---	None	---	None
		April	0.0	>6.0	---	---	None	---	None
		May	0.0-1.0	>6.0	---	---	None	---	None
		November	0.0-1.0	>6.0	---	---	None	---	None
		December	0.0-1.0	>6.0	---	---	None	---	None
Lm:									
Limerick	C								
		January	0.0-1.5	>6.0	---	---	None	Brief	Frequent
		February	0.0-1.5	>6.0	---	---	None	Brief	Frequent
		March	0.0-1.5	>6.0	---	---	None	Brief	Frequent
		April	0.0-1.5	>6.0	---	---	None	Brief	Frequent
		May	0.0-1.5	>6.0	---	---	None	Brief	Frequent
		November	0.0-1.5	>6.0	---	---	None	Brief	Frequent
		December	0.0-1.5	>6.0	---	---	None	Brief	Frequent
Saco	C								
		January	0.0-0.5	>6.0	---	---	None	Brief	Frequent
		February	0.0-0.5	>6.0	---	---	None	Brief	Frequent
		March	0.0-0.5	>6.0	---	---	None	Brief	Frequent
		April	0.0-0.5	>6.0	---	---	None	Brief	Frequent
		May	0.0-0.5	>6.0	---	---	None	Brief	Frequent
		October	---	---	---	---	None	Brief	Frequent
		November	0.0-0.5	>6.0	---	---	None	Brief	Frequent
		December	0.0-0.5	>6.0	---	---	None	Brief	Frequent
LY:									
Lyme, very stony	C								
		January	0.0-1.5	>6.0	---	---	None	---	None
		February	0.0-1.5	>6.0	---	---	None	---	None
		March	0.0-1.5	>6.0	---	---	None	---	None
		April	0.0-1.5	>6.0	---	---	None	---	None
		May	0.0-1.5	>6.0	---	---	None	---	None
		November	0.0-1.5	>6.0	---	---	None	---	None
		December	0.0-1.5	>6.0	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Ma:									
Madalin	D								
		January	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		February	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		March	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		April	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		May	0.0-1.0	>6.0	0.0-0.5	Long	Occasional	---	None
		June	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	---	None
		November	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	---	None
		December	0.0-1.0	>6.0	0.0-0.5	Brief	Occasional	---	None
MnB:									
Manlius, undulating	C								
		Jan-Dec	---	---	---	---	None	---	None
Nassau	C								
		Jan-Dec	---	---	---	---	None	---	None
MnC:									
Manlius, rolling	C								
		Jan-Dec	---	---	---	---	None	---	None
Nassau	C								
		Jan-Dec	---	---	---	---	None	---	None
MnD:									
Manlius, hilly	C								
		Jan-Dec	---	---	---	---	None	---	None
Nassau	C								
		Jan-Dec	---	---	---	---	None	---	None
Ms:									
Massena	C								
		January	0.5-1.5	>6.0	---	---	None	---	None
		February	0.5-1.5	>6.0	---	---	None	---	None
		March	0.5-1.5	>6.0	---	---	None	---	None
		April	0.5-1.5	>6.0	---	---	None	---	None
		May	0.5-1.5	>6.0	---	---	None	---	None
		November	0.5-1.5	>6.0	---	---	None	---	None
		December	0.5-1.5	>6.0	---	---	None	---	None
MvA:									
Mosherville	C								
		January	0.5-1.5	1.2-2.5	---	---	None	---	None
		February	0.5-1.5	1.2-2.5	---	---	None	---	None
		March	0.5-1.5	1.2-2.5	---	---	None	---	None
		April	0.5-1.5	1.2-2.5	---	---	None	---	None
		May	0.5-1.5	1.2-2.5	---	---	None	---	None
		November	0.5-1.5	1.2-2.5	---	---	None	---	None
		December	0.5-1.5	1.2-2.5	---	---	None	---	None
MvB:									
Mosherville	C								
		January	0.5-1.5	1.2-2.5	---	---	None	---	None
		February	0.5-1.5	1.2-2.5	---	---	None	---	None
		March	0.5-1.5	1.2-2.5	---	---	None	---	None
		April	0.5-1.5	1.2-2.5	---	---	None	---	None
		May	0.5-1.5	1.2-2.5	---	---	None	---	None
		November	0.5-1.5	1.2-2.5	---	---	None	---	None
		December	0.5-1.5	1.2-2.5	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
MxB:									
Mosherville	C								
		January	0.5-1.5	1.2-2.5	---	---	None	---	None
		February	0.5-1.5	1.2-2.5	---	---	None	---	None
		March	0.5-1.5	1.2-2.5	---	---	None	---	None
		April	0.5-1.5	1.2-2.5	---	---	None	---	None
		May	0.5-1.5	1.2-2.5	---	---	None	---	None
		November	0.5-1.5	1.2-2.5	---	---	None	---	None
		December	0.5-1.5	1.2-2.5	---	---	None	---	None
Hornell, undulating	D								
		January	0.5-1.5	1.7-3.3	---	---	None	---	None
		February	0.5-1.5	1.7-3.3	---	---	None	---	None
		March	0.5-1.5	1.7-3.3	---	---	None	---	None
		April	0.5-1.5	1.7-3.3	---	---	None	---	None
		May	0.5-1.5	1.7-3.3	---	---	None	---	None
		November	0.5-1.5	1.7-3.3	---	---	None	---	None
		December	0.5-1.5	1.7-3.3	---	---	None	---	None
NaC:									
Nassau, rolling	C								
		Jan-Dec	---	---	---	---	None	---	None
Rock Outcrop	D								
		Jan-Dec	---	---	---	---	None	---	None
NaD:									
Nassau, hilly	C								
		Jan-Dec	---	---	---	---	None	---	None
Rock Outcrop	D								
		Jan-Dec	---	---	---	---	None	---	None
Ne:									
Newstead	C								
		January	0.5-1.0	1.0-3.3	---	---	None	---	None
		February	0.5-1.0	1.0-3.3	---	---	None	---	None
		March	0.5-1.0	1.0-3.3	---	---	None	---	None
		April	0.5-1.0	1.0-3.3	---	---	None	---	None
		May	0.5-1.0	1.0-3.3	---	---	None	---	None
		November	0.5-1.0	1.0-3.3	---	---	None	---	None
		December	0.5-1.0	1.0-3.3	---	---	None	---	None
NuB:									
Nunda	C								
		March	1.5-2.0	2.5-6.0	---	---	None	---	None
		April	1.5-2.0	2.5-6.0	---	---	None	---	None
		May	1.5-2.0	2.5-6.0	---	---	None	---	None
NuC:									
Nunda	C								
		March	1.5-2.0	2.5-6.0	---	---	None	---	None
		April	1.5-2.0	2.5-6.0	---	---	None	---	None
		May	1.5-2.0	2.5-6.0	---	---	None	---	None
OaA:									
Oakville	A								
		January	3.0-6.0	>6.0	---	---	None	---	None
		February	3.0-6.0	>6.0	---	---	None	---	None
		March	3.0-6.0	>6.0	---	---	None	---	None
		April	3.0-6.0	>6.0	---	---	None	---	None
		November	3.0-6.0	>6.0	---	---	None	---	None
		December	3.0-6.0	>6.0	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
OaB:									
Oakville, undulating	A								
		Jan-Dec	---	---	---	---	None	---	None
OaC:									
Oakville, rolling	A								
		Jan-Dec	---	---	---	---	None	---	None
OaD:									
Oakville, hilly	A								
		Jan-Dec	---	---	---	---	None	---	None
OeE:									
Oakville	A								
		Jan-Dec	---	---	---	---	None	---	None
Windsor	A								
		Jan-Dec	---	---	---	---	None	---	None
Pm:									
Palms	A/D								
		January	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		February	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		March	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		April	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		May	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		November	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		December	0.0-1.0	>6.0	0.0-1.0	Very long	Frequent	---	None
Pp:									
Palms, ponded	A/D								
		January	0.0	>6.0	1.0-3.0	Very long	Frequent	---	None
		February	0.0	>6.0	1.0-3.0	Very long	Frequent	---	None
		March	0.0	>6.0	1.0-3.0	Very long	Frequent	---	None
		April	0.0	>6.0	1.0-3.0	Very long	Frequent	---	None
		May	0.0	>6.0	1.0-3.0	Very long	Frequent	---	None
		June	0.0	>6.0	1.0-3.0	Very long	Frequent	---	None
		July	0.0	>6.0	1.0-3.0	Long	Frequent	---	None
		August	0.0	>6.0	1.0-3.0	Long	Frequent	---	None
		September	0.0	>6.0	1.0-3.0	Long	Frequent	---	None
		October	0.0	>6.0	1.0-3.0	Long	Frequent	---	None
		November	0.0	>6.0	1.0-3.0	Very long	Frequent	---	None
		December	0.0	>6.0	1.0-3.0	Very long	Frequent	---	None
PtB:									
Paxton	C								
		February	1.5-2.5	1.5-3.3	---	---	None	---	None
		March	1.5-2.5	1.5-3.3	---	---	None	---	None
		April	1.5-2.5	1.5-3.3	---	---	None	---	None
PtC:									
Paxton	C								
		February	1.5-2.5	1.5-3.3	---	---	None	---	None
		March	1.5-2.5	1.5-3.3	---	---	None	---	None
		April	1.5-2.5	1.5-3.3	---	---	None	---	None
Pu:									
Pits, Quarry	---								
		Jan-Dec	---	---	---	---	None	---	None
Pv:									
Pits, Sand And Gravel	A								
		Jan-Dec	---	---	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
PwA:									
Pittstown	C								
		January	1.5-2.5	1.5-2.5	---	---	None	---	None
		February	1.5-2.5	1.5-2.5	---	---	None	---	None
		March	1.5-2.5	1.5-2.5	---	---	None	---	None
		April	1.5-2.5	1.5-2.5	---	---	None	---	None
		November	1.5-2.5	1.5-2.5	---	---	None	---	None
		December	1.5-2.5	1.5-2.5	---	---	None	---	None
PwB:									
Pittstown	C								
		January	1.5-2.5	1.5-2.5	---	---	None	---	None
		February	1.5-2.5	1.5-2.5	---	---	None	---	None
		March	1.5-2.5	1.5-2.5	---	---	None	---	None
		April	1.5-2.5	1.5-2.5	---	---	None	---	None
		November	1.5-2.5	1.5-2.5	---	---	None	---	None
		December	1.5-2.5	1.5-2.5	---	---	None	---	None
Ra:									
Raynham	C								
		January	1.0-2.0	>6.0	---	---	None	---	None
		February	1.0-2.0	>6.0	---	---	None	---	None
		March	1.0-2.0	>6.0	---	---	None	---	None
		April	1.0-2.0	>6.0	---	---	None	---	None
		May	1.0-2.0	>6.0	---	---	None	---	None
		November	1.0-2.0	>6.0	---	---	None	---	None
		December	1.0-2.0	>6.0	---	---	None	---	None
RhA:									
Rhinebeck	D								
		January	0.5-1.5	1.7-3.3	---	---	None	---	None
		February	0.5-1.5	1.7-3.3	---	---	None	---	None
		March	0.5-1.5	1.7-3.3	---	---	None	---	None
		April	0.5-1.5	1.7-3.3	---	---	None	---	None
		May	0.5-1.5	1.7-3.3	---	---	None	---	None
RhB:									
Rhinebeck	D								
		January	0.5-1.5	1.7-3.3	---	---	None	---	None
		February	0.5-1.5	1.7-3.3	---	---	None	---	None
		March	0.5-1.5	1.7-3.3	---	---	None	---	None
		April	0.5-1.5	1.7-3.3	---	---	None	---	None
		May	0.5-1.5	1.7-3.3	---	---	None	---	None
Sa:									
Scarboro	D								
		January	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		February	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		March	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		April	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		May	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		June	0.0	>6.0	0.0-1.0	Long	Frequent	---	None
		July	0.0	>6.0	0.0-1.0	Long	Occasional	---	None
		August	0.0	>6.0	0.0-1.0	Long	Occasional	---	None
		September	0.0	>6.0	0.0-1.0	Long	Occasional	---	None
		October	0.0	>6.0	0.0-1.0	Long	Frequent	---	None
		November	0.0	>6.0	0.0-1.0	Long	Frequent	---	None
		December	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
SCB:									
Schroon, stony	B								
		January	1.5-2.0	>6.0	---	---	None	---	None
		February	1.5-2.0	>6.0	---	---	None	---	None
		March	1.5-2.0	>6.0	---	---	None	---	None
		April	1.5-2.0	>6.0	---	---	None	---	None
		November	1.5-2.0	>6.0	---	---	None	---	None
		December	1.5-2.0	>6.0	---	---	None	---	None
SeA:									
Scio	B								
		March	1.5-2.0	>6.0	---	---	None	---	None
		April	1.5-2.0	>6.0	---	---	None	---	None
		May	1.5-2.0	>6.0	---	---	None	---	None
SeB:									
Scio	B								
		March	1.5-2.0	>6.0	---	---	None	---	None
		April	1.5-2.0	>6.0	---	---	None	---	None
		May	1.5-2.0	>6.0	---	---	None	---	None
Sh:									
Shaker	C								
		January	0.0-1.5	>6.0	---	---	None	---	None
		February	0.0-1.5	>6.0	---	---	None	---	None
		March	0.0-1.5	>6.0	---	---	None	---	None
		April	0.0-1.5	>6.0	---	---	None	---	None
		May	0.0-1.5	>6.0	---	---	None	---	None
		June	0.0-1.5	>6.0	---	---	None	---	None
		October	0.0-1.5	>6.0	---	---	None	---	None
		November	0.0-1.5	>6.0	---	---	None	---	None
		December	0.0-1.5	>6.0	---	---	None	---	None
SKB:									
Skerry, very stony	C								
		January	1.5-2.5	1.7-3.0	---	---	None	---	None
		February	1.5-2.5	1.7-3.0	---	---	None	---	None
		March	1.5-2.5	1.7-3.0	---	---	None	---	None
		April	1.5-2.5	1.7-3.0	---	---	None	---	None
		May	1.5-2.5	1.7-3.0	---	---	None	---	None
		November	1.5-2.5	1.7-3.0	---	---	None	---	None
		December	1.5-2.5	1.7-3.0	---	---	None	---	None
Sn:									
Sun	D								
		January	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	---	None
		February	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	---	None
		March	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	---	None
		April	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	---	None
		November	0.0-0.5	>6.0	0.0-1.0	Long	Occasional	---	None
		December	0.0-0.5	>6.0	0.0-1.0	Long	Occasional	---	None
StA:									
Sutton	B								
		January	1.5-2.5	>6.0	---	---	None	---	None
		February	1.5-2.5	>6.0	---	---	None	---	None
		March	1.5-2.5	>6.0	---	---	None	---	None
		April	1.5-2.5	>6.0	---	---	None	---	None
		November	1.5-2.5	>6.0	---	---	None	---	None
		December	1.5-2.5	>6.0	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
StB:									
Sutton	B								
		January	1.5-2.5	>6.0	---	---	None	---	None
		February	1.5-2.5	>6.0	---	---	None	---	None
		March	1.5-2.5	>6.0	---	---	None	---	None
		April	1.5-2.5	>6.0	---	---	None	---	None
		November	1.5-2.5	>6.0	---	---	None	---	None
		December	1.5-2.5	>6.0	---	---	None	---	None
Te:									
Teel	B								
		January	1.5-2.0	>6.0	---	---	None	Very brief	Occasional
		February	1.5-2.0	>6.0	---	---	None	Brief	Occasional
		March	1.5-2.0	>6.0	---	---	None	Brief	Occasional
		April	1.5-2.0	>6.0	---	---	None	Brief	Occasional
		May	1.5-2.0	>6.0	---	---	None	Brief	Occasional
		November	---	---	---	---	None	Very brief	Occasional
		December	---	---	---	---	None	Very brief	Occasional
Tg:									
Tioga	B								
		January	---	---	---	---	None	Very brief	Occasional
		February	3.0-6.0	>6.0	---	---	None	Very brief	Occasional
		March	3.0-6.0	>6.0	---	---	None	Brief	Occasional
		April	3.0-6.0	>6.0	---	---	None	Brief	Occasional
		May	---	---	---	---	None	Very brief	Occasional
		November	---	---	---	---	None	Very brief	Occasional
		December	---	---	---	---	None	Very brief	Occasional
TNC:									
Tunbridge, very bouldery	C								
		Jan-Dec	---	---	---	---	None	---	None
Lyman, very bouldery	C/D								
		Jan-Dec	---	---	---	---	None	---	None
TNE:									
Tunbridge, very bouldery	C								
		Jan-Dec	---	---	---	---	None	---	None
Lyman, very bouldery	C/D								
		Jan-Dec	---	---	---	---	None	---	None
TNF:									
Tunbridge, very bouldery	C								
		Jan-Dec	---	---	---	---	None	---	None
Lyman, very bouldery	C/D								
		Jan-Dec	---	---	---	---	None	---	None
Ud:									
Udipsamments, dredged	A								
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	---	---	---	---	None	Brief	Occasional
		May	---	---	---	---	None	Brief	Occasional
		November	---	---	---	---	None	Brief	Occasional
		December	---	---	---	---	None	Brief	Occasional

Table 25.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
Ue:									
Udorthents, smoothed	A/D								
		January	3.0-6.0	>6.0	---	---	None	---	None
		February	3.0-6.0	>6.0	---	---	None	---	None
		March	3.0-6.0	>6.0	---	---	None	---	None
		April	3.0-6.0	>6.0	---	---	None	---	None
		May	3.0-6.0	>6.0	---	---	None	---	None
		June	3.0-6.0	>6.0	---	---	None	---	None
		November	3.0-6.0	>6.0	---	---	None	---	None
		December	3.0-6.0	>6.0	---	---	None	---	None
UnB:									
Unadilla	B								
		Jan-Dec	---	---	---	---	None	---	None
UnC:									
Unadilla	B								
		Jan-Dec	---	---	---	---	None	---	None
W:									
Water	---								
		Jan-Dec	---	---	---	---	None	---	None
Wa:									
Wareham	C								
		January	0.0-1.5	>6.0	---	---	None	---	None
		February	0.0-1.5	>6.0	---	---	None	---	None
		March	0.0-1.5	>6.0	---	---	None	---	None
		April	0.0-1.5	>6.0	---	---	None	---	None
		May	0.0-1.5	>6.0	---	---	None	---	None
		June	0.0-1.5	>6.0	---	---	None	---	None
		September	0.0-1.5	>6.0	---	---	None	---	None
		October	0.0-1.5	>6.0	---	---	None	---	None
		November	0.0-1.5	>6.0	---	---	None	---	None
		December	0.0-1.5	>6.0	---	---	None	---	None
WnA:									
Windsor	A								
		Jan-Dec	---	---	---	---	None	---	None
WnB:									
Windsor, undulating	A								
		Jan-Dec	---	---	---	---	None	---	None
WnC:									
Windsor, rolling	A								
		Jan-Dec	---	---	---	---	None	---	None
WnD:									
Windsor, hilly	A								
		Jan-Dec	---	---	---	---	None	---	None

Table 25.--Water Features--Continued

Map symbol and soil name	Hydrologic group	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft	Ft	Ft				
WO:									
Wonsqueak, ponded	A/D								
		January	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		February	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		March	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		April	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		May	0.0	>6.0	0.0-1.0	Very long	Frequent	---	None
		June	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	---	None
		July	0.0-0.5	>6.0	0.0-1.0	Long	Occasional	---	None
		September	0.0-0.5	>6.0	0.0-1.0	Long	Occasional	---	None
		October	0.0-0.5	>6.0	0.0-1.0	Long	Occasional	---	None
		November	0.0-0.5	>6.0	0.0-1.0	Long	Frequent	---	None
		December	0.0	>6.0	0.0-1.0	Long	Frequent	---	None
WrB:									
Woodbridge	C								
		January	1.5-2.5	1.5-3.3	---	---	None	---	None
		February	1.5-2.5	1.5-3.3	---	---	None	---	None
		March	1.5-2.5	1.5-3.3	---	---	None	---	None
		April	1.5-2.5	1.5-3.3	---	---	None	---	None
		May	1.5-2.5	1.5-3.3	---	---	None	---	None
		November	1.5-2.5	1.5-3.3	---	---	None	---	None
		December	1.5-2.5	1.5-3.3	---	---	None	---	None

Table 26.--Relationship Between Parent Material, Position, and Drainage of Soil Series

Parent material and soil characteristics*	Excessively drained	Somewhat excessively drained	Well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
Soils on Uplands at an Elevation above about 1,000 feet							
Deep and very deep, medium textured over moderately coarse textured, reddish brown soils with a compact substratum; formed in stony glacial till derived from granite, gneiss and schist.			Becket	Skerry		Lyme	
Deep and very deep, medium textured, reddish, brown soils; formed in stony glacial till derived from granite, gneiss and mica schist.			Berkshire	Skerry		Lyme	
Deep and very deep, medium textured, brownish soils; formed in glacial till derived from granite, gneiss, sandstone and shale.			Bice	Schroon		Lyme	
Moderately deep, medium textured, reddish brown soils; formed in glacial till over mica schist and gneiss.			Tunbridge				
Shallow, medium textured,reddish brown soils; formed in glacial till over granite and schist.		Lyman					
Shallow, medium textured, brownish soils; formed in glacial till over mica schist or gneiss.		Woodstock					
Deep and very deep, coarse textured, reddish brown soils; formed in glacio-fluvial deposits of sand, or sand and gravel.			Allagash				
Deep and very deep, coarse textured, reddish brown soils; formed in glacio-fluvial deposits cobbly, gravelly sand.	Colton						
Deep and very deep, moderately coarse textured brownish and grayish soils; formed in recent alluvial deposits.			Udipsamments	Udipsamments	Fluvaquents	Fluvaquents	Fluvaquents

Table 26.--Relationship Between Parent Material, Position, and Drainage of Soil Series

Parent material and soil characteristics*	Excessively drained	Somewhat excessively drained	Well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
Soils on Uplands at an Elevation Above About 1,000 Feet							
Soil formed in well decomposed organic material 16 to 51 inches thick over loamy mineral material.							Wonsqueak
Soils on Upland Till Plains at an Elevation Below About 1,000 Feet							
Deep and very deep, medium textured over moderately coarse textured, brownish soils with a compact fragipan; formed in glacial till derived from granite, gneiss and some shale.			Broadalbin	Broadalbin	Mosherville	Sun	Sun
Deep and very deep, medium textured brownish soils with a compact substratum; formed in glacial till derived from shale, slate and schist.			Bernardston	Pittstown		Sun	Sun
Moderately deep, medium textured and moderately fine textured, brownish soils; formed in channery glacial till over soft shale.	Manlius	Manlius	Manlius		Hornell	Allis	
Shallow, medium textured, brownish soils; formed in glacial till over slate or soft shale.		Nassau					
Deep and very deep, medium textured brownish soils; formed in glacial till derived from gneiss, schist, sandstone and limestone.			Charlton	Sutton	Massena		Sun
Deep and very deep, medium textured brownish soils with a compact substratum; formed in glacial till derived from schist, gneiss, and granite.			Paxton	Woodbridge		Sun	Sun
Moderately deep, medium textured, brownish soils; formed in glacial till over granite, gneiss, and sandstone.		Chatfield	Chatfield				

Table 26.--Relationship Between Parent Material, Position, and Drainage of Soil Series—Continued

Parent material and soil characteristics*	Excessively drained	Somewhat excessively drained	Well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
Soils on Upland Till Plains at an Elevation Below About 1,000 Feet							
Shallow, medium textured, brownish soils; formed in glacial till over granite, gneiss, and sandstone.		Hollis	Hollis				
Deep and very deep, moderately fine brownish soils; formed in glacial till derived from calcarous shale.				Nunda	Burdett	Ilion	
Moderately deep, medium textured, brownish soils; formed in calcareous glacial till over limestone or calcareous sandstone.			Galway	Galway	Newstead		
Shallow, medium textured, brownish soils; formed in calcareous glacial till over limestone or calcareous sandstone.		Farmington	Farmington				
Soils on Lacustrine Plains and Deltas							
Deep and very deep, fine textured, grayish and brownish soils; formed in glacio-lacustrine deposits.				Hudson	Rhinebeck	Madalin	Madalin
Deep and very deep, medium textured, brownish soils; formed in glaciolacustrine deposits.			Unadilla	Scio	Raynham		
Deep and very deep, medium textured, brownish soils; formed in glaciofluvial material over fine textured glaciolacus-trine deposits.				Elmridge		Shaker	
Deep and very deep, moderately coarse textured brownish soils; formed in glacio-fluvial material over glaciolacustrine deposits.				Claverack	Cosad	Cheektowaga	Cheektowaga

Table 26.--Relationship Between Parent Material, Position, and Drainage of Soil Series—Continued

Parent material and soil characteristics*	Excessively drained	Somewhat excessively drained	Well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
Soils on Outwash Plains, Terraces, Moraines, and Beach Ridges							
Deep and very deep, moderately coarse textured, gravelly, brownish soils; formed in glaciofluvial material over sand and gravel deposits.	Hinckley	Hoosic					
Deep and very deep, medium textured gravelly brownish soils; formed in glacio-fluvial material over sand and gravel deposits.		Chenango	Chenango				
Deep and very deep, coarse textured, brownish soils; formed in glaciofluvial material, primarily medium sand.	Windsor			Deerfield		Wareham	Scarboro
Deep and very deep, moderately coarse textured, brownish soils; formed in glaciofluvial material, primarily fine sand.			Oakville	Oakville			
Soils on Flood Plains							
Deep and very deep, medium textured, brownish soils; formed in alluvial sediments.			Tioga	Teel		Limerick	Saco
Deep and very deep, moderately fine textured to coarse textured, variable colored soils; formed in recent alluvial sediments.					Fluvaquents	Fluvaquents	Fluvaquents
Soils in Swamps and Bogs							
Soils formed in well decomposed organic material that is 16 to 51 inches thick over loamy mineral material, and may be ponded most of the year.							Palms

Table 26.--Relationship Between Parent Material, Position, and Drainage of Soil Series—Continued

Parent material and soil characteristics*	Excessively drained	Somewhat excessively drained	Well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
Soils on Uplands, Outwash Plains or Flood Plains							
Deep and very deep, fine textured to coarse textured, grayish or brownish soils that are in recent excavations or dredgings.		Udipsamments Udorthents	Udipsamments Udorthents	Udorthents			

Table 27.--Classification of the Soils

Soil name	Family or higher taxonomic class
Allagash	Coarse-loamy over sandy or sandy-skeletal, mixed, frigid Typic Haplorthods
Allis	Fine, illitic, acid, mesic Aeric Haplaquepts
Becket	Coarse-loamy, mixed, frigid Typic Haplorthods
Berkshire	Coarse-loamy, mixed, frigid Typic Haplorthods
Bernardston	Coarse-loamy, mixed, mesic Typic Dystrochrepts
Bice	Coarse-loamy, mixed, frigid Typic Dystrochrepts
Broadalbin	Coarse-loamy, mixed, mesic Typic Fragiochrepts
Burdett	Fine-loamy, mixed, mesic Aeric Ochraqualfs
Charlton	Coarse-loamy, mixed, mesic Typic Dystrochrepts
Chatfield	Coarse-loamy, mixed, mesic Typic Dystrochrepts
Cheektowaga	Sandy over clayey, mixed, mesic Typic Haplaquolls
Chenango	Loamy-skeletal, mixed, mesic Typic Dystrochrepts
Claverack	Sandy over clayey, mixed, nonacid, mesic Aquic Udorthents
Colton	Sandy-skeletal, mixed, frigid Typic Haplorthods
Cosad	Sandy over clayey, mixed, nonacid, mesic Aquic Udorthents
Deerfield	Mixed, mesic Aquic Udipsamments
Elmridge	Coarse-loamy over clayey, mixed, mesic Aquic Dystric Eutrochrepts
Farmington	Loamy, mixed, mesic Lithic Eutrochrepts
Fluvaquents	Fluvaquents
Galway	Coarse-loamy, mixed, mesic Typic Eutrochrepts
Hinckley	Sandy-skeletal, mixed, mesic Typic Udorthents
Hollis	Loamy, mixed, mesic Lithic Dystrochrepts
Hoosic	Sandy-skeletal, mixed, mesic Typic Dystrochrepts
Hornell	Fine, illitic, acid, mesic Aeric Haplaquepts
Hudson	Fine, illitic, mesic Glossaquic Hapludalfs
Ilion	Fine-loamy, mixed, mesic Mollic Ochraqualfs
Limerick	Coarse-silty, mixed, nonacid, mesic Typic Fluvaquents
Lyman	Loamy, mixed, frigid Lithic Haplorthods
Lyme	Coarse-loamy, mixed, acid, frigid Aeric Haplaquepts
Madalin	Fine, illitic, mesic Mollic Ochraqualfs
Manlius	Loamy-skeletal, mixed, mesic Typic Dystrochrepts
Massena	Coarse-loamy, mixed, nonacid, mesic Aeric Haplaquepts
Mosherville	Coarse-loamy, mixed, mesic Aquic Fragiochrepts
Nassau	Loamy-skeletal, mixed, mesic Lithic Dystrochrepts
Newstead	Coarse-loamy, mixed, nonacid, mesic Aeric Haplaquepts
Nunda	Fine-loamy, mixed, mesic Glossaquic Hapludalfs
Oakville	Mixed, mesic Typic Udipsamments
Palms	Loamy, mixed, euic, mesic Terric Medisaprists
Paxton	Coarse-loamy, mixed, mesic Typic Dystrochrepts
Pittstown	Coarse-loamy, mixed, mesic Aquic Dystrochrepts
Raynham	Coarse-silty, mixed, nonacid, mesic Aeric Haplaquepts
Rhinebeck	Fine, illitic, mesic Aeric Ochraqualfs
Saco	Coarse-silty, mixed, nonacid, mesic Fluvaquentic Humaquepts
Scarboro	Sandy, mixed, mesic Histic Humaquepts
Schroon	Coarse-loamy, mixed, frigid Aquic Dystrochrepts
Scio	Coarse-silty, mixed, mesic Aquic Dystrochrepts
Shaker	Coarse-loamy over clayey, mixed, nonacid, mesic Aeric Haplaquepts
Skerry	Coarse-loamy, mixed, frigid Aquic Haplorthods
Sun	Coarse-loamy, mixed, nonacid, mesic Aeric Haplaquepts
Sutton	Coarse-loamy, mixed, mesic Aquic Dystrochrepts
Teel	Coarse-silty, mixed, mesic Fluvaquentic Eutrochrepts
Tioga	Coarse-loamy, mixed, mesic Dystric Fluventic Eutrochrepts
Tunbridge	Coarse-loamy, mixed, frigid Typic Haplorthods
Udipsamments	Udipsamments
Udorthents	Udorthents
Unadilla	Coarse-silty, mixed, mesic Typic Dystrochrepts
Wareham	Mixed, mesic Humaqueptic Psammaquents
Windsor	Mixed, mesic Typic Udipsamments
Wonsqueak	Loamy, mixed, euic Terric Borosaprists
Woodbridge	Coarse-loamy, mixed, mesic Aquic Dystrochrepts
Woodstock	Loamy, mixed, frigid Entic Lithic Haplorthods

NRCS Accessibility Statement

The Natural Resources Conservation Service (NRCS) is committed to making its information accessible to all of its customers and employees. If you are experiencing accessibility issues and need assistance, please contact our Helpdesk by phone at 1-800-457-3642 or by e-mail at ServiceDesk-FTC@ftc.usda.gov. For assistance with publications that include maps, graphs, or similar forms of information, you may also wish to contact our State or local office. You can locate the correct office and phone number at http://offices.sc.egov.usda.gov/locator/app.